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THE MEDICAL AGE.

A Semi-Monthly Journal of Medicine and Surgery.

EDITED BY

B. W. PALMER, M. D.

VOLUME VII

DETROIT, MICHIGAN.
GEORGE S. DAVIS, PUBLISHER.
1889.

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The Medical Age.

Vol. VII. DETROIT, JANUARY 10, 1889. No. 1.

Original Articles.

SURGICAL NOTES—EMERGENCY HOSPITAL, DETROIT.

BY HAL C. WYMAN, M. D., M. S.*

MURIATE OF AMMONIUM.

Gentlemen:—I am not a great believer in the healing powers of drugs generally. I might announce my Therapeutic Trinity thus: I believe that opium will relieve pain, that quinine will cure malaria, and that mercury will prevent fermentation and putrefaction. That is about as far as my therapeutics are matters of belief. But I do not see why God should not have given healing powers to other drugs as well as to those I have mentioned. I think we ought to keep right on trying to discover drugs which will cure disease. Some years ago, when a student, I used to travel about from college to college to hear the different professors lecture and improve myself in the work of my profession. I visited a certain city and asked to be shown to the medical college. I was directed to an institution, and visited it. I took my seat while the professor of materia medica was lecturing on hydrophobia. I listened attentively. He spoke of the old school. He denounced its methods of treatment. He left the thread of his discussion to anathematize the use of calomel for any purpose. I almost fancied he was trying to imitate a case of hydrophobia, so great was the frenzy of his rage whenever he happened to speak of the treatment for hydrophobia, advised by the writers and practitioners of regular medicine. I was in what they call an eclectic medical college. He said he knew of one medicine, however, which the old school had introduced which was worth using; it was the chloride of ammonium. He knew that it was a specific in hydrophobia. He had treated numbers of cases of that disease with the chloride of ammonium, and it acted like a charm. I never heard anyone express so much confidence in a drug as he did for that one. He tried to reason as to its action, but would invariably wind up his logic with the statement: "Well, I don't know that I can tell you how it does it, but it does it, for I saw Mrs. so-and-so who was in convulsions; she had been bitten by a dog (a mad dog I suppose), I gave her chloride of ammonium externally, internally, and almost eternally, and she recovered—therefore the drug cured her."

I don't want to ask your allegiance to such an exact and elaborate system of reasoning in regard to medicine as that, but I do want to speak of a property which the chloride of ammonium has in the treatment of certain surgical diseases and injuries. You have seen it used here in the clinic in many cases of contused wounds, with what we can rationally construe as satisfactory results.

Now, the patient before us has experienced the satisfactory use of chloride of ammonium. He had this left arm, which you can see is in a promising state of recovery, crushed between the deadwoods of two freight cars. Some of you saw the arm at the time. It was frightfully crushed and mutilated from the middle of the arm to the roots of the fingers. Near the elbow, above and below on the inner aspect, the skin was broken, making a wound about six inches long and two inches in width. This was occupied with the pulpy remains of muscles and fascias. The biceps was pulped and torn from its attachment to the radius. Other muscles of the region were crushed to a pulp. The great vessels were so badly injured, that while we could detect pulsation in the brachial artery, neither the ulnar or radial could be felt at the wrist. The case looked as though amputation would have to be performed at once. The shock was the greatest. He was very pale, had lost much blood before the ambulance surgeon reached him. His pulse was weak and fluttering. I did not think his condition favorable for an amputation. We dressed the wound and wrapt the arm and hand in antiseptic gauze soaked in a solution of ammonium (℥ i ad aquam Oss). He was given a dose of Dover's powder and put to bed. The next morning I expected to amputate the arm, but when I came to examine it I was pleased to find the radial and ulnar arteries pulsating at the wrist. The gauze and chloride of ammonium were continued for more than a week, during which time the wound displayed sufficient vigor to guarantee its repair.

You have seen numbers of other cases in this clinic where the parts have been crushed almost beyond hope of recovery, yet under the chloride of ammonium treatment they have gotten well.

* Professor of Principle of Surgery, Michigan College of Medicine and Surgery.

Five men, you will remember, got their hands into cracker machines and had them crushed between rollers. In a few weeks they recovered.

Another got his hand into a machine used for stamping or pounding sole leather in a shoe factory. You will remember that the adductor policis muscle of his injured hand was crushed out of the hand through a lacerated wound between the thumb and index finger. The muscle held by its attachment to the thumb. We pushed it back into its normal position, adjusted the lacerated flaps of integument, and dressed the whole with gauze saturated with the solution of chloride of ammonium. The result is a perfect restoration of the functions of the hand without the loss of any tissue except a little cuticle.

You may ask, how do I explain this power of the chloride of ammonium to stimulate the circulation of the blood in parts which have been deprived the wholesome influence of blood currents.

I must answer that it has this power of promoting rythmical contractions of non-striated muscles, such as are found in the walls of the smaller blood vessels.

To test this, some of you may go to the city fish market and there look in the barrel into which the fishermen throw the offal from the fish they clean as they sell them. There you can find a heart, blood-vessels and intestines of a sturgeon or other good-sized fish. The structure you may take to the college laboratory of physiology and there stimulate the heart to act long after it is apparently cold in death by applying various substances to it. If you prick its ventricles with a sharp needle they will begin to contract and continue to do so for some time. If you will inject through it a stream of solution of chloride of ammonium, the same strength that we have used on wounds, you will see the heart at once begin a series of rythmical contractions that will resemble closely the normal ones. The small arteries of the mesentery will also act similarly when the chloride of ammonium passes through them.

These facts have made me apply this medicine in the treatment of senile gangrene. I have known it to produce marvelous results in cases of that disease. Dr. Snow, of Dearborn, Mich., one of our oldest and most respected practitioners, tells me he has seen senile gangrene disappear and the patient get well after bathing the toe and leg for some weeks in a mixture of chloride af ammonium and brandy. It probably does good in these cases by stimulating the muscles of the arterioles to drive the blood through the capilaries where the blood stasis which preceeds the gangrene begins.

In conclusion, I want to say, gentlemen, that in chloride of ammonium we have (1) a drug which is useful in restoring circulation in tumors which have been crushed and, if left to themselves would require amputation; (2) a drug capable of promoting circulation in tissues about to undergo the changes known as senile gangrene.

SALIX NIGRA, THE NEW SEXUAL SEDATIVE.

BY F. T. PAINE, M. D., COMANCHE, TEX.

In April, 1885, I had the pleasure of presenting this new medicine to the notice of the profession, in a paper read before the Texas State Medical Association, at its session held at Houston. This paper has been very generally reproduced in the medical journals of this country, and, being entirely new, has attracted no little attention both in and out of the profession, as my extensive correspondence throughout the Union for the last three years demonstrates.

That there should have been some failures and disappointments is not very surprising, in the use of a remedy so entirely new and for troubles so very extensive and varied.

But the disappointments are chiefly due to an omission on the part of the writer of the original paper.

In that paper a hope was expressed that the new medicine would become invaluable in the treatment of masturbation and spermatorrhœa, omitting to state that it is only in the initial stages of these troubles that benefit may be expected, and that it is only prophylactic.

The diseases incident to, and consequent upon masturbation and excessive venery are both more numerous, more troublesome, and more difficult to get clear of than the plagues of Egypt. And I now never attack them except with the aid of electricity.

As to the value of salix nigra as a true sexual sedative, I had then no doubt, and now after three years of additional experience, I have the positive confirmation.

In my original paper a case of dysmenorrhœa of 16 years' standing was reported as cured, I had reason then for believing that it was also a case of nymphomania, though the woman refused then and again recently to answer interrogations on the subject. She would only use the prescription until relieved of pain, and is now a subject of diseased ovary.

In a few weeks I called on this lady, when she returned the half-emptied bottle of salix nigra, saying she had no use for the balsam, nor any use for ——, her husband, only to furnish grub and make fires, and that she never knew what health was before. On careful investigation I found the englargement, hyperæmia and the hyperæsthesia of the ovary all gone. The vulva, vagina, uterus and ovaries were perfectly natural, as far as a digital examination could reveal. The cure of the va-

ginismus was due to electricity; the reduction in size, the hyperæmia and hyperæsthesia of ovary, to salix nigra.

April, 1888, a maiden lady of about 50 years came under treatment for troubles, which I considered reflex, from ovarian trouble. On examination I found the ovaries much enlarged and exceedingly sensitive to the touch. Ordered fluid extract nigra ʒ i, three times daily. In ten days the ovaries were very much reduced in size and sensitiveness, and the patient very much improved in health. But on the approach of another period in the catamenial cycle some of the same troubles returned, but she was so well satisfied the improvement was due to the salix that she immediately ordered another bottle.

These cases prove that the action of the medicine is directly and specifically upon the testicular organs of the sexes, reducing hyperæmia and hyperæsthesia. This condition of hyperæmia and hyperæsthesia is agreed by common consent to obtain on the approach and during the œstival of animals and catamenial epoch in the human female, and the reduction of this state is the philosophy of the use of the salix nigra.

In pursuance of this thought, how much of the so-called criminal life of women is due to a pathological state of the ovaries, which is amenable to treatment? But she may demand treatment for any thing, rather than erotism. She may fly from yellow fever, but her erotism follows her and is relentless. I firmly believe she will find in the salix a "balm in Gilead."

One man was reported who confessed to six copulations nightly, and who never was satisfied sexually, but after ten days' use of the salix could not copulate once a week. Another of the cases reported cured came five years later to be cured of the effects of masturbation. While the drug suppresses the sexual passions, it will not cure the evils already produced by sexual excesses.

I had an opportunity in April last of applying the crucial test. A lady, aged 23, applied for treatment, whose history, mixed up with the diagnosis and treatment of her family physician, obscured the case so as to add greatly to the difficulty of a correct diagnosis. She was married three years without a conception, had been told she had abscess of the uterus, and that tumors blocked the vulvo-vaginal canal. I found vaginismus and proposed separating her from her husband until cured, which being positively refused, I found nymphomania existing as the cause of the refusal. The vulvo-vaginal hyperæsthesia precluded the possibility of a digital investigation—even the presence of the thermometer was intolerable. Yet, so great was the sexual impulse that she could not and would not forego the coitus. She said the orgasm was continuous; during intercourse her pleasure never ceased. That if she had not married when she did, she would have lost her virtue, and sought illicit gratification. In her first intercourse, the nuptial couch was rendered a pool of blood (perhaps an explanation of some other reported cases of ruptured vagina in a first intercourse), yet she made no complaint on the occasion. Contrary to my expectations, it required thirteen days to cure the vaginismus, using electricity one hour each day. (I reported a case to the Texas State Medical Association, at Austin, April, 1886, cured in one sitting of thirty minutes). The vaginismus cured, I freely examined the ovaries, and found them hyperæmic, enlarged, and very sensitive. hyperæsthetic, as in the case first reported in original paper, in which the woman refused to answer as to sexual feelings.

For the nymphomania, I ordered the fluid extract of salix nigra (P., D. & Co.'s) ʒ j, t. i. d.

INTRA-UTERINE DEATH—ITS PATHOLOGY AND PREVENTIVE TREATMENT.*

BY PROF. SIMPSON, EDINBURGH.

The topic which has been proposed for discussion to-day has recently been expounded with great ability and fulness of illustration by DR. PRIESTLY. When I remind you that DR. PRIESTLY tells us he found it impossible to treat The Pathology of Intra-uterine Death exhaustively in the Lumleian Lectures, you will see that I must not attempt to do more than outline the subject now, by way of indicating the points on which we may hope to gain information from the wisdom and experience of the obstetricians here assembled.

PATHOLOGY.

Let me group the causes of intra-uterine death under the three rubrics of, 1, Fœtal; 2, Maternal; 3, Placental. I do not overlook the well-known circumstance that conditions of disease or debility on the part of the male parent are often the obvious source of the pregnancy disaster. But the paternal influence, as a rule, produces its mischievous effect by the development of morbid processes in the fœtus, in its mother, or in the placenta which forms the channel of communication between the two.

1. *Fœtal Causes of Intra-Uterine Death.*—As regards the causes of death *in utero* on the part of the fœtus itself, we note that it may die, first, of some acute disease; secondly, of some chronic affection; thirdly, from some accident.

First, we have occasional illustrations of the death of the intra-uterine fœtus from Acute Disease during certain epidemics, when the

*Read in the Section of Obstetric Medicine at the Annual Meeting of the British Medical Association, held in Glasgow.

mother is affected with a zymotic poison, and passes through the attack without aborting, but casts a dead fœtus with healthy appendages, a few weeks later. We have a woman seven months pregnant, for example, passing through an attack of modified small-pox, and three weeks after the fever has subsided she may give birth to a dead fœtus with pustules all over the body, and the placenta giving no evidence of pathological disturbance. Such cases we may any of us have seen, when probably the fœtus died of pyrexia. In this category we may class the cases where the fœtus has been the subject of extensive inflammation, as in those instances where not only effusion into the abdominal cavity, but the presence of flakes of lymph on the liver, spleen and intestinal coils give evidence of active peritonitis.

Secondly, in those women who have a succession of infants dying *in utero*, we have far more frequently to do with cases where the fœtus is the subject of some Chronic Affection. The syphilitic affections of the viscera, for instance, would be enough of themselves to prove fatal in the fœtus, apart from the morbid changes in the placenta, which are, however, more commonly the cause of death; and in this group we must place some of the dead infants that are born dropsical, scleremic, or the subjects of malarial or other affections of the spleen, liver, or kidneys.

Thirdly, the death of the fœtus may be Accidental—the result of some traumatism, or it may be brought about by some unusual condition of the umbilical cord, whether from the much debased and doubtful exaggeration of its torsion, or from its more clearly established pathological convolutions and knot-formations. Thus we may see a dead fœtus with the cord coiled simultaneously round the neck and the right thigh, in such a fashion that the struggles of the infant set up by interference with the funic circulation, must necessarily have increased the difficulty and brought about the death; and in cases where twins are developed in a common sac, the cords may be so entangled that in one the circulation is completely arrested, and the child to which it is adherent dies.

2. *Maternal Cause of Intra-Uterine Death.*—The conditions on the part of the mother that lead to death of the fœtus are sometimes: First, general, when the woman is the subject of some constitutional disorder, or of disease in some important organ; or, secondly, local, when the fault is in the uterus itself or its immediate surroundings.

First, of constitutional diseases affecting a pregnant woman, and liable to cause interruption of her gestation, we may take note of the zymotic affections, which may produce their fatal effects either by their pyrexial intensity, or by stimulating the uterus to cast its contents untimeously, or by the tendency to hæmorrhage resulting from the changes in the blood: all this, it may be, before there is time for the fœtus itself to give evidence of having been infected with the poison. The same results are seen in acute diseases, such as pneumonia, acute yellow atrophy of the liver, septicæmia, erysipelas, metallic poisoning, etc. Where a woman has a series of miscarriages, however, we are more likely to have to do with one who is the subject of some cardiac lesion which becomes aggravated during pregnancy; or she suffers from anæmia or leukæmia. In same rare cases the urine is diabetic; not so seldom it contains albumen. Death of the fœtus may here be due to imperfect nutrition or respiration from the morbid condition of the blood; which may also, however, tend to set up premature uterine activity, or, more frequently still, give a proclivity to uterine hæmorrhage.

Secondly, as regards the local maternal causes of intra-uterine death, we note that, whilst displacements and chronic inflammations of the uterus are to blame for many cases of habitual abortion in the early months, these do not manifest their pernicious influence so commonly after the fœtus has come to its fuller development. Only in some of the cases of chronic endometritis, where the ovum has escaped the risks of the imperfect formation or dangerous implantation of the placenta and of the decidual hæmorrhages to which such patients are so prone, the fœtus may suffer and languish and even die when the catarrhal condition becomes established, which is associated with the debilitating drain commonly described as hydrorrhœa gravidarum.

3. *Placental Causes of Intra-Uterine Death.*—The greatest number of cases of intra-uterine deaths by far are traceable to morbid conditions of the placenta. This is just what we might expect from a consideration of the functional importance of this organ. As regards the fœtus itself, we may meet with individual cases where the brain and spinal cord are wanting, where the liver is ductless, the gullet or intestines occluded, or the kidneys supplanted by two cystic masses, without any impairment of its intra-uterine vitality; and the cardiac monster lives on till the close of pregnancy because its circulation is kept up by the effort of its large-hearted twin brother. In every one of these conditions, alimentation, oxygenation and elimination of waste products all go on through the medium of the placenta, and the defect or degeneration in the fœtal organ only comes into prominence after there is a call for its functional activity after the work of the placenta is done. As regards the mother, she may be reduced to the last degree of weakness, as we may see in some cases of phthisis, and yet the parasite in her womb will live and thrive at her expense if only the me-

dium of its communication with her system remain unaffected.

In taking up the placental causes of death we may leave out of our discussion to-day the cases where the placenta has been implanted in dangerous zones, or presents peculiarities in its size or mode of development, and fix our attention on the morbid changes in its structure, whether these be, first, neoplastic: secondly, nutritional; or, thirdly, apoplectic.

First, neoplastic degenerations of the placenta may be found either in the fœtal or maternal elements of it, the new growths taking the place of the normal structures or interfering with their functional activity. In the myxomatous placenta we have an instance of degeneration of tissues belonging to the ovum. This kind of mal-development is much more familiar to us in the cases where it sets in at an early stage of pregnancy, and affects the whole chorionic surface, so that all the villi become the seat of hydatigenous change, and the pregnancy ends in the production of a vesicular mole; but the same process may set in at a later stage among the growing placental villi, with the result that many of the villi become transformed into cystic masses pressing upon the healthier structures, and according to their extent impairing or abolishing the life-sustaining functions of the whole placenta. Growths of various kinds, but of somewhat doubtful character, have sometimes been described as seated in the decidual portion of the placenta. Perhaps we should reckon amongst these the gummata that have been found by various observers in the uterine portion of the placenta in women who are markedly syphilitic, and that consist of patches of fibrous and granulation tissue scattered through the cotyledons. Decidual neoplasms, however, are usually localized and too limited in extent to affect deeply the integrity of the organ.

Secondly, the Nutritional changes in the placenta include the inflammations and degenerations of tissue, which are beyond all question the most common cause of the impairment of its functions, and so of interference with the vigor or vitality of the infant. They are the pathological processes to which it is most needful to direct our attention, and in regard to which important aid will be given by clearer views as to the structure and development of the normal placenta. Until, for instance, anatomists have succeeded in determining for us whether the epithelial mantle of the active placental villi takes its origin from the chorion or from the decidua, we remain uncertain whether to seek for the explanation of its pathological changes in causes on the part of the ovum or the uterus. Referring it provisionally to the chorion we may note that the pathological processes (1) the Fœtal portions of the placenta usually affect all the elements of a villus, but can sometimes be traced primarily or principally to changes (*a*) in the Vessels, (*b*) in the Parenchyma, (*c*) in the Epithelial investment.

(*a*) Researches into the degenerative processes in syphilitic placenta have made it very plain that the coats of the placental blood-vessels undergo in many cases a degree of thickening and hypertrophy that may lead to obliteration of their canals. Where such changes affect the capillaries in the the villi, morbid processes are often found reaching back into the larger vessels, and occasionally it is in the umbilical cord itself that the intima or adventitia are more distinctly atheromatous or thickened.

(*b*) In other instances the occlusion of the vessels is due not so much to thickening of their walls as to compression caused by morbid processes going on in the surrounding Parenchyma. Instead of remaining as a layer of transparent mucoid tissue sustaining the capillaries and allowing them to lie close to the epithelial surface bathed in the maternal blood, the substance of the villus becomes swollen and dim, sometimes simply in a state of great œdema, sometimes crowded with granulated cells. The enlarged structures fill up the lacunar spaces and obstruct the maternal blood-flow in the affected cotyledon, whilst the compression of the fœtal blood-vessels may lead to congestion in the neighboring territories. The irritative process that at first causes hypertrophy of the chorio-placental parenchyma may produce a secondary stage of fibrous degeneration when the tissue becomes dense and cirrhotic and atrophy sets in in the morbid areas.

(*c*) It is in their epithelial covering, however, that we should look for the most important of the pathological processes in the placental villi. Whilst the walls of the capillaries and their surrounding parenchyma may have a mechanical influence in determining the flux and reflux between mother and fœtus, it is to the epithelial cells that invest them that the more vital function must belong of elaborating from the maternal blood the pabulum necessary for transmission to the fœtus, or the extracting from the fœtal blood the waste products to be thrown into the mother's circulation. It is in this element of the placental villi, accordingly, that we find the most constant changes when the function of the placenta is interrupted When the fœtus dies from any non-placental cause, the first and most advanced retrogressive change in the placenta is fatty degeneration of the villous epithelium. Whenever damage is done to the placenta, as in cases of blood-extravasation, again the epithelial cells degenerate. When the placenta is œdematous, and when it is cirrhotic, whatever changes affect the vessels or the parenchyma, we con-

stantly see that the epithelial covering shares in the morbid process. Sometimes it is in a state of swelling and hyperplasia, its cells enlarging, multiplying, and becoming cloudy, or its elements become fattily degenerated and disintegrated, and according as the process is more or less widely diffused throughout the cotyledons is the degree of danger to the life of the fœtus. The agent which can be most distinctly recognized as active in the production of these villous diseases and degenerations is the syphilitic virus, and where this has been introduced into the ovum of a healthy woman by tainted semen it is in these fœtal portions of the placenta that we have the primary and principal manifestations of the mischief. But probably the degenerative processes have at times another origin, as we may see the œdematous or fatty placenta associated with dropsical states of the fœtal or morbid conditions of the maternal blood, where no history of syphilitic infection can be obtained, and no pathological changes of a distinctly syphilitic character can be observed.

2. The maternal portion of the placenta may be the seat of inflammatory, hypertrophic, and degenerative changes. The irritative process may affect chiefly the uterine or external parietal layer of the placenta, leading to induration of the surface such as renders the separation difficult in the third stage of labor, and gives rise to the varieties of adherent placenta which cannot be thrown off by an active uterus. The cases with which we have at present to do are those where the trabecular and boundary layers are implicated as well, and the decidual tissue through which the maternal blood circulates and in which the fœtal villi are embedded are the seat of change. Here processes parallel to those seen in the fœtal elements have been observed. Sometimes the tissue is œdematous, soft, and swollen, with the decidual cells enlarged and dim and hyperplastic, the whole placenta being enlarged and pale. In other cases the cells are found in a state of fatty degeneration with granular exudation in the intercellular matrix. Or there may occur a hypertrophic proliferation of the connective tissue leading to induration of the structure, and in some cases to a consecutive condition of atrophy that has been described as cirrhotic. Where there is a syphilitic taint in the maternal system the granulation tissue has the features characterised as gummatous. The various processes may owe their origin to syphilitic irritation. But the simpler forms of inflammation and degeneration are also sometimes found in women without traceable syphilitic history, but who have been the subjects of chronic endometritis, or of some blood-dycrasia. The result of them is friability of tissue, with proclivity to hæmorrhage, or compression of the vascular sinuses, or of the stems of the villi leading to secondary changes there and total loss of the function of the affected part.

Thirdly, the Apoplectic changes in the placenta present themselves under different forms, and may be of various origin. Among them have sometimes been described cases where there may not have been much or any laceration of tissue, but, in a cotyledon, the blood seems to have been detained and coagulated. It is difficult to account for this thrombotic occurrence, except on the supposition that the fœtal villi in the affected sinuses have first become diseased, and acted as foreign bodies on the encircling fluid, and the normal hyperinosis of pregnancy is sometimes exaggerated to a degree that renders the blood liable to thrombosis in any space where it meets morbid structures, or is slowed in its transit. True extravasations may take place on the uterine surface of the placenta. When confined to one cotyledonary area, the blood crushes the corresponding lobule; and if there be no recurrence, the damage is not detected till after the expulsion of the secundines, when the blood-clot will be found on the compressed cotyledon fresh or decolorised, or undergoing further change, according to the more or less recent date of its occurrence. When the blood-escape is more extensive, or when it occurs near the placental margin, it is likely to lead on to a labor complicated by accidental hæmorrhage. The true apoplexies, however, take place into the cavernous portions of the placental lobules. In some of them the extravasations may have so distended the cavity it has produced as to have burst the parietal layer of the placenta, and become visible through the opening seen on the uterine surface after the placenta is expelled. But in most cases they are detained within a cavity, which is only exposed after an incision is made into it, either from the bulging uterine or amniotic surface. They are single or multiple. They may occur at different dates of pregnancy, and according as they are more or less recent the affected lobule is found in very varying conditions. Where the accident is of recent occurrence, the placenta is markedly thickened at the seat of extravasation, and, when the cavity is opened, the blood is found still fluid or loosely coagulated, and the placental tissues are simply compressed. Perhaps in the same placenta may be found another cotyledon, also thickened, but more dense to the feel, and in it the blood is firmly coagulated and becoming decolorised, while the placental tissues are becoming the seat of fatty degeneration. In yet another it has begun to contract, and the placental tissues are disintegrating and shrivelling: and in another part of the placenta that has become thin and hard, the whole of the placental tissues, with the entangled blood-clot

have become transformed into a dense node of fibrous tissue, in which no further trace of chorionic or decidual elements can be discovered. It is not always easy to determine whether the extravasation is a cause or a consequence of the attendant tissue degenerations. in some of the syphilitic placentæ it seems pretty evident that the interference with the circulation in a specially affected area may may lead to hyperæmia in neighboring territories, and so to the tendency to congestion and extravasation there. In some cases the degenerative processes in the placental elements will render them unusually friable, so that a degree of disturbance that in a healthy placenta will cause only a temporary congestion will in them bring about a laceration in the wide-meshed trabecular layer. But in other instances the extravasation is primary. The placental tissues may be all healthy, and yet extravasations will take place in women who are the subjects of typhoid or other fever, or who suffer from anæmia, leukæmia, or other morbid states of the blood. There is a notable tendency to such recurrent placental apoplexies in pregnant women with chronic Bright's disease and the hæmorrhages occur more readily in women of relaxed fibre, in whom there is marked relaxation of the uterine walls and deficiency in the tonic rhythmical contractions characteristic of the healthy gravid uterus. The influence on the life and development of the fœtus vary with the number of the lobules implicated, and the dates at which the accident occurs. If many lobules are simultaneously implicated, the fœtus may die quickly of the sudden interference with its oxygenating organ. When the lobules are affected in succession and with some weeks of interval between the destruction of the several lobules, the fœtus may survive, but be born ill-nourished, delicate, and difficult to rear.

DIAGNOSIS.

The conditions which we have thus been considering may never be suspected, and some of them can never be recognised when they are suspected till after the expulsion of the sanguinolent fœtus and its secundines. But when such a fœtus has been born, careful examination should be made of the viscera, and especially of the liver and spleen, which are apt to be distinctly enlarged and otherwise modified in syphilitic children, and of the bones to trace the osteo-chondritis syphilitica of Wegner, as well as that of the placenta and umbilical cord, to find the varying forms of disease they may present. And when we have a patient giving birth to a succession of dead children, we must watch her through her following pregnancy, observing whether there be any tendency to such special tenderness in the uterine walls as has sometimes been noted in syphilitic patients, or recurrence of sensations of local uneasiness or general faintness, such as have sometimes seemed to indicate the dates of the occurrences of hæmorrhagic extravasations; and, above all, to note the character of the fœtal heart-beats, so as to catch in the slowing and weakening of its sounds the indications of vital depression or impending death of the fœtus.

PREVENTIVE TREATMENT.

When in our obstetrical practice we have a patient giving birth to a series of still-born children, our first aim is to determine whether she be the subject of any constitutional diathesis, or, where she seems to be healthy, whether there is any such indications on the part of the fœtus. In a large proportion of casec there will be syphilitic manifestations more or less distinct. In giving the proportion of 83 per cent. as the result of his own investigations, CARL RUGE is probably not far off the average mark. In such patients we may hold out the hope that with the lapse of years matters will improve. If the wife, as is commonly the case, had been previously healthy, and the husband can be persuaded to let the uterus remain at rest until in process of time the virus in him has lessened in its intensity and the tertiary symptoms have disappeared, it may become possible for him to impregnate a healthy ovum that will develop and be carried to the full term. But it should be remembered that, even where the tertiary stage has been reached, we can give no certainty of healthy procreation to a man once constitutionally syphilitic, and the most hopeful results are to be obtained by the enforcement of anti-syphilitic treatment.

I fix attention on the marital syphilis because in at least four cases out of five it is the husband who brings this miserable endowment into the marriage contract, and because it is sentimentally cruel and scientifically stupid to make the wife the subject of our efforts to counteract the effects of the poison in her person while nothing is done to neutralize in him who at each fresh conception is infecting her anew. Mercury in its various preparations has too often been introduced into the system of pregnant women, to the detriment of their constitution, when it might have been administered with the happiest consequences to the husband. Only after his system has been sterilized as well as hers by the lengthened use of the protiodide or other salt of mercury in regulated doses should she be exposed to the chance of a fresh conception; and, when conception has taken place, the use of the mercurial once or twice a day in small tonic doses should be continued far into or throughout the pregnancy. The administration of iodide of potassium may occasionally accompany or succeed the mercury, and the waters of Aixles-

Bains, Ems, and Kissingen have sometimes been useful, especially where there remains a tendency to uterine inflammations in a patient in whom the syphilitic taint has been otherwise counteracted.

As regards other constitutional conditions, it is equally clear that we must use the resources of our art to remedy them. The anæmic patient must take iron during her pregnancy, and she will sometimes do well to take arsenic in small doses along with it. The patient with albuminuria should be dieted with milk, and in her also the use of iron is often serviceable. In such patients, as well as in those affected with cardiac difficulties, the iron may be given along with digitalis, or with strophanthus, which is an excellent substitute for digitalis in the cardiac complications of pregnancy.

Where the placental disease is traceable to chronic inflammatory processes in the uterus, care must be taken to secure complete involution after the dead child has been born, and it may be necessary, before another fertilized ovum is allowed to lodge in the uterus, to make some applications to the endometrium, or let the patient have a course of the waters of Ems, Karlsbad, Kreuznach, or Kissengen.

When we have done all that we can in the way of eliminating diathetic mischiefs, and building up the patient's system and restoring the uterus to health, we ask whether there be any means of promoting the placental functions in cases where there is reason to apprehend disease or degeneration in that organ. Perhaps various substances may prove useful in this direction, but as yet the only drug that has given quite satisfactory results in the chlorate of potass. The idea under which it was first administered, that this richly oxygenous salt would part with its oxygen to the fœtal blood, and so supplement the respiratory action in the impaired conditions of the placenta, has long been given up. A dose of twenty grains passes within about twenty-four hours out of the system, and can be obtained almost in its entirety in the patient's urine. But observation has abundantly confirmed the importance of its full and continuance administration, in enabling patients with placental weakness to carry their infants on to viability or to full development. It should be given in doses of fifteen or twenty grains every six or eight hour, so that there may always be some of the salt in the circulating fluid. Its use should be begun as early in pregnancy as at the third month, and it should be continued up to the hour of the infant's birth.

Our final resource in certain cases is to induce labor after the period of viability is passed, and when a fœtus is nearing the stage of development at which its uterine predecessor perished, or when by the stethoscope we detect the signs of impending danger. The hint is often given us by what is seen to take place naturally. In the cases especially of the placental apoplexies, the blood extravasation sometimes produces such a degree of separation of the membranes and placenta that uterine activity is set up. We can most safely imitate the natural process by having recourse to the use of hot vaginal douches. When the period of viability is passed, the douche may be employed with water moderately warm for short periods twice a day, with the result that the uterus will simply be stimulated to healthy tonicity of action. Then, as the period of danger approaches, the douche should be used more frequently, for greater lengths of time, and with water raised to a higher temperature (110° to 120° F). If uterine action remain too long in abeyance, it may be started by the introduction of a gum-elastic bougie, carried up for six, eight, or ten inches into the cavity of the uterus, between its walls and the membrane of the ovum. Introduce the bougie in such a case at bedtime and leave it there, and in the morning you may expect to be called to assist at the delivery of—happily—a living and life-like infant.

Correspondence.

BERLIN LETTER.

(*From our Special Correspondent.*)

BERLIN, Dec. 6th, 1888.

Demonstration of a New Ophthalmological Examination—The Action of Opium and Morphine on Menstruation—Hamamelis Virginica and Hydrastis Canadensis in Hemoptysis—Improved Glycerin Suppositories—Synthetic Cocaine—Butylchloral as an Analgesic—Quinine Hypodermically.

The Berliner Medizinische Gesellschaft, is so accustomed to the presentation of highly interesting papers and discourses, that nothing short of matters of vital importance, practically or scientifically, can create a surprise or sensation. But the prior announcement of Dr. Bellarminow, of St. Petersburg, that he would present a new method of ophthalmological examination naturally invited universal interest. The brief paper read by the Russian physician represented merely a preliminary statement to be followed in the near future by complete details. The following contains the salient points of the paper: If a plano-parallel glass-plate is brought in contact with the cornea and gently pressed on it, the moisture of the cornea will expand itself between the glass-plate and the corneal surface according to the laws of capillarity. The result of this is the production of a more or less extended surface which

removes the curvature of the cornea. The eye is thus rendered strongly hypermetropic and allows the rays of light from the back ground of the eyes, which are strongly divergent, to fall into the eye of the observer. The examination is to be carried out as follows: The eye is cocainized and a plano-parallel glass plate, 10 m. m. in diameter is carefully pressed on the cornea. The eye is to be illuminated with daylight through a plano-mirror. In the evening a lamp and a reflector suffice, or a lamp with a collective lense. It is, however, more convenient to use an ordinary mirror, in which there need not be any opening, as the mirror can be on the side of the observer. The optical back-ground, thus illuminated becomes binocularly visible in an upright picture and in the usual reading distance not only for the observer but also for two or three persons standing near by and looking into the eye. The enlargement of the picture thus obtained is not very considerable, but we obtain an extended visual field. It is, of course, too early to predict the precise value of this new method for ophthalmological practice. The evident advantages of Bellarminow's innovation are the following: 1. Ease and accessibility of examination even for those of a limited experience. 2. The privilege of having the back-ground of the eye examined by two to three persons at the same time. There were never any symptoms of irritation produced by the manipulations in question. It is barely possible that this new method of examination will bring forward some new facts concerning the interior parts of the eye. It seems also reasonable to assume that the new method will facilitate the ophthalmological examination of children, bed-fast patients, lunatics and animals.

Dr. Roller has enriched our pharmacological knowledge by an interesting study of the action of opium on menstruation. Cessation of menstruation has repeatedly been noted in lunatics on the administration of opium, and particularly of morphine hypodermically. Roller's attention was first called to this fact by the observation that a diminution or cessation of morphine-injections brought about the return of menses which had been absent for a year or longer. Roller has published a number of cases in which the suppresing influence of opium and morphine on menstruation is fully illustrated. One case is particularly striking. A woman, 42 years of age, afflicted with hypochondriac-melancholia, received five drops of the tincture of opium three times a day; later she received as much as thirty drops, and finally daily injections of morphine for a long period. Menstruation ceased for nine months and, later, after the discontinuance of the injections, they returned spontaneously. The author narrated four other cases in which a mere diminution of the number of injections occasioned the return of menstruation. Roller has, on the other hand, used both opium and morphine successfully in profuse menstruation. Thus far there are no statements in medical literature concerning the suppressing influence exerted by those narcotics on menstruation. Röhler (Handbook der Therapie and Materia Med. p. 1047) says: "There is nothing known concerning the influence of morphine on menstruation." Kleinwachter (vide 'abortus' in Eulenberg's Realencyclopædie) says, "In abortion opium has no action whatever." Schroeder is reticent on the subject. In the textbook of Nothnagel and Rossbach we find the statement that in chronic morphine-poisoning amenorrhœa is frequently observed. It has, of course, been long known that both opium and morphine slow the pulse by cerebral irritation of the pneumogastric veins.

Horsley (Brit. Med. Assoc.) recommended in operations of the brain the use of morphine hypodermically prior to the anæsthetic, as that agent caused a considerable arterial contraction and thus caused a saving of the precious fluid. Lutand recommended morphine in uterine diseases complicated with profuse bleeding, as he had noted that women addicted to the use of morphine did not menstruate at all.

The observations of these authors ought to indnce practitioners to try the exhibition of opium or morphine in cases of profuse menstruation.

Something new, and undoubtedly useful, is Dr. Koniger's discovery of the highly styptic influence exerted by hamamelis Virginica and still more by hydrastis canadensis in hemoptysis. Such news will be all the more welcome as both ergot and iron have a very undesirable, if not directly injurious action on the stomach, which, in phthisis particularly, ought to be carefully avoided. Koniger has used the fluid extracts of both remedies for the last three years with very satisfactory results. In nearly all cases of moderate hemoptysis the fluid extracts of hamamelis proved a success after the failure of all other remedies. Hydrastis is more certain and prompt in its action than hamamelis. The former owns even prophylactic virtues; given some time before the hemorrhage is expected, it is able to prevent it, similarly as it prevents an excessive bleeding during menstruation. Both drugs are said to have a very desirable tonic action on the stomach. Koniger prescribes the fluid extract of hydrastis in twenty- to thirty-drop doses three times daily. Schatz, Fellner and Langgaard have shown that the drug contracts the vessels by its action on the vascular centres. Untoward secondary effects have never been observed by Koniger excepting in a single instance, where large doses of 40 drops or more caused cephalalgia.

LIEBREICH has recently examined the action of isotropylcocaine, an agent which is almost a permanent admixture of cocaine. This body was found to be a powerful heart poison, but to have no anæsthetic qualities. It is probable that even muriate of cocaine, if not crystallized exceedingly well, contains traces of this poison. LIEBERMANN and GIESEL have succeeded in transforming this hitherto useless admixture into ekgonine, which is readily changed into benzol ekgonine, which in its turn is changed into cocaine, according to the method indicated by EINHORN. This synthetic cocaine has been investigated by LIEBREICH, and was found to have perfect anæsthetic virtues without any secondary effects.

LIEBREICH has introduced a new analgesic agent, butylchloral, which seems to have a specific action in subduing pain in the domain of the trifacial nerves. He has found the drug to be of the highest value in tic douloureux, toothaches proceeding from various causes, periostitis of the maxillary bones and allied affections. His formula is:

℞ Butylchloral, 2-5.00.
Spir. vini rect., 10.00.
Glycer., 20.00.
Aq. dest., 120.00.
M. S.—Three to four tablespoonfuls at once.

In conclusion, I would mention a newly introduced preparation of quinine, which is peculiarly adapted for hypodermic use, viz., neutral hydrochlorate of quinine. The salt is very readily soluble, stable, and has no local action. It is prepared by dissolving 20 gms. of basic muriate of quinine in 5 gms. of pure muriatic acid and 15 gms. of distilled water at a moderate heat, and filtrating. A Pravaz syringe of this solution contains 0.75 gms. of basic quinine. This preparation will be particularly valuable in such patients as as peculiarly sensitive to the internal use of quinine. No vertigo or ringing of the ears is produced by the hypodermic application of this preparation of quinine.

PHYSICIAN VS. DRUGGIST.

In the MEDICAL AGE for December 10th, a correspondent, who signs himself "M.", would have physicians believe that the druggist plays the part between the physician and the people that the safety valve does between the steam and the boiler, thereby preventing their destruction by over doses and physiological incompatibility. The fallacy of this is so apparent, that comment is unnecessary. But, does the physician receive any real benefit from the vender of drugs and patent medicines? He expects the service of the physician for himself and family gratis, and while the physician is thus engaged, a man drops into the druggist's place of business and complains of a sore throat, and inquires of the druggist what is best to do for it? Does the druggist inform him that it is not his profession to prescribe for him, and he must go to some one who has made the application of medicine to disease a study? No, indeed, but without the least knowledge of the character of the affection, whether benign or malignant, he at once recommends chlorate of potash, or *some patent nostrum*. Yet, at the same time, the druggist declares that it is incumbent on the physician to write prescriptions that he may fill them, and in a great number of cases refills them *ad libitum*, or while filling them ascertain by accident (intentionally) what they are intended to relieve. Then, the first customer he hears of who is afflicted in a similar manner, is quietly informed by the clever druggist that he has a remedy that will just meet his case, and solicits him to give it a trial. Whereupon he gives him some of the same as the physician prescribed, but, of course, he does not do it because of his "greed of gain," or because of his confidence in the physician, but for his love for his fellow-man!

Now, as to the physician's mistakes, and the illegibility of penmanship. Why not relieve the druggist of this (small) responsibility, by filling our own prescriptions, which we are certainly amply able to do. And as to the law of compatibility, the physician is quite as well versed as the druggist, and has the same facilities for ascertaining the facts relating thereto, while his knowledge of materia medica and therapeutics, the physiological effects of all drugs, their dose and antidote, is far superior to the druggist's. In short, the physician being able to diagnose a disease, and write a prescription for the relief of the same, is certainly posted as to the physiological effects, whether antagonistic or otherwise, of the drugs he prescribes. Hence the physician is under no more obligation to the druggist than to other business men; much less, in fact. Who other than the druggist receives the benefit when the physician writes a prescription for 1 grain of corrosive sublimate and 4 ounces of water, with directions to take one teaspoonful three times a day, after meals, and gives it to his patient, requiring him to go to the druggist and pay 45 cents because the man that fills it is a druggist and 5 cents for the bottle, mercury, etc., thereby causing the patient a trip to the drug store and a double expense for which he receives a single benefit? The principle involved is that of monopoly, which means a benefit for the few to the detriment of the many—a principle which should be relegated to some inferior region from whence it emigrated, and there doomed to oblivion.

N. E. ALFORD, M. D.

No. 684½ South Main St., Lima, Ohio.

In the MEDICAL AGE, of Dec. 10, 1888, was a letter from "M." in reply to a couple of articles previously written by two physicians under the above heading. He extols the noble acts of the druggists, and tells how they save lives that the doctors' prescriptions would kill, and closes by arrogating to the drug trade the standing of a profession bearing equal honor with ours. He began by saying the writers of the previous articles started off in a very belligerent attitude. Query: Did he not close in a very presumptuous attitude?

It is a plea from a dying cause; the day of the druggists is near at hand. The medical profession are fast putting in their own drugs and handling their own business. The average druggist will injure the doctor's business every time, asking questions, making remarks and in many different ways luring people into his toils.

The average druggist, moreover, will dispense anything the prescription calls for, and is not a protection against the dangers of the doctor's mistakes. While in the city a short time ago at one of the leading pharmacies, I handed in a prescription of permanganate of potash, and fluid extract of ergot. Pretty soon out from behind his case comes the clerk with hair parted in the middle and began wrapping up the bottle. I removed the wrapper and suggested that there must be a fight going on inside as it was pretty warm there. The dude stood in blank astonishment.

As we value our reputation as medical men and are jealous of our interests, we must handle our own drugs. We alone are the rightful dispensers. C.

SYR. TRIFOLIUM CO. AND HÆMATIC HYPOPHOSPHITES.

Since last I reported my experience with the syr. trifolium comp., in the MEDICAL AGE, September number, '87, I have had the opportunity of testing the virtues of this preparation in several cases of secondary and tertiary syphilis, which had previously been unsatisfactorily treated by mercurial and iodine preparations. Being cases of long-standing, and tonics being indicated, I alternated the syr. trifolium comp. with hæmatic hypophosphites, as recommended by DR. RAY MITCHELL, in his article on tonic alteratives, in the MEDICAL AGE, April, '88. In these cases thus treated (besides the customary local treatment) I had the satisfaction to find that amendment took place after one month's treatment, and at the present time all symptoms of the disease have disappeared. Their course of treatment with these preparations average from three to four months, the dose being gradually diminished.

I have also used the syr. trifolium comp. and hæmatic hypophosphites successfully in a case of mercurial cachexia, with attending muscular atrophy and great debility.

The alterative and tonic properties of these preparations were strikingly exemplified in a case of local blood-poisoning, caused by the contact with dry hen-manure on a slight sore on the hand, in the case of a farmer. Erysipelatous inflammation, and large suppurating abscesses had occurred. Besides local antiseptic treatment, the sulphide of calcium, and the sulphites were prescribed to check suppuration, but abscesses continued to form, until syr. trifolium comp. and hæmatic hypophosphites were given alternately four times daily. After a week of this treatment, improvement took place and the abscesses healed.

DR. HARBISON, a neighboring physician, tells me that he has, during the last year, prescribed the syr. trifolium comp. with entirely satisfactory results in several cases of constitutional syphilis, though in two of his cases he found it necessary to add to each dose of the compound small doses of iodide of potassium.

The uniform good results I have had in those cases in which I prescribed the syr. trifolium comp., satisfies me that we possess in this preparation an alterative that can be depended upon, and deserves further trial by the profession.

A. CRULL, M. D.

DITTMER'S STORE, Mo.

NORMAL LIQUID ERGOT IN A CASE OF UTERINE FIBROID.

I wish to add my testimony to the value of normal liquid ergot.

Mrs. W., American, age 35, housewife. I was called in to treat this patient at the time of a miscarriage, and became aware of a tumor in the uterine cavity, in the upper part, of the size of a small hen's egg, or speaking more precisely it was about 1¼ inches in diameter, and somewhat elongated. It was firmly attached and was firm and elastic to the touch. The only hemorrhage that occurred was due to the miscarriage. From all the indications I am of the opinion that it was a fibroid.

For treatment I simply kept her under the influence of normal liquid ergot twenty drops, three times a day for several days and then withdrew the medicine for a day or two. This kept the uterus contracted nicely, the effect even lasting during the few days of rest when the ergot was withheld. The treatment was thus continued for three months. I can not describe my feeling of surprise when at the end of this period I made an examination with a uterine sound and found that the tumor had disappeared. Five years have now elapsed and she has given birth to one child with no indications whatever of the existence of a tumor.

The surprising and pleasant feature of the

case, aside from the happy result of the treatment, is that no poisonous effects were noticed, though I watched carefully for some symptoms that would lead me to withhold the remedy. The absence of unpleasant symptoms I believe to be unusual, if I may judge by my own observation and the statements of authorities, and is only explainable by the fact that normal liquor ergot is free from the impurities and inert but irritant substances that characterize most other preparations of ergot.

A. L. RIZER, M. D.

AURORA, OHIO.

A PLEASANT PURGATIVE FOR CHILDREN.

It is conceded, I believe, that castor oil would be the most popular purgative for children known, if it were not for its objectionable taste; that aromatic syrup of rhubarb is a most excellent purgative, and would be used almost to the exclusion of other preparations if the irritant after effect that follows its administration did not militate against its employment; and that cascara cordial, from its desirable tonic properties, would be the *sine qua non* only its proper rôle is as a tonic curative laxative, and is too uncertain as a purgative.

A friend kindly informed me recently that he employs the prescription given below with success. The combination pleased me. I have tried it, and it fulfills all indications (including palatableness) more satisfactorily than any purgative I have prescribed. It will serve equally well for grown up children:

℞ Castor oil,
Aromatic syr. rhubarb,
Cascara cordial, āā f ℥ j.

M. Sig.—Dose, one teaspoonful, or as may be needed.

R. R. MITCHELL, M. D.

CLEVELAND, O

CASCARA IN RHEUMATISM.

The patient is an old lady of 64 years' of age. She had suffered from rheumatism for years, and had been under treatment by quite a number of physicians, without having a cure effected. I was called in to treat the case, and concluded it was a good one in which to test the efficacy of cascara sagrada.

I prescribed 2 ozs. of fl. ext. cascara sagrada, in 15-drop doses, to be given every four hours. After giving the first few doses, she began to feel relieved, and in two weeks' time said she was entirely well, but she was so well pleased with the action of the medicine that she continued taking it until the two ounces were used.

Over three months have rolled by and she has had no return of the trouble, and says she has not felt so well for years.

J. S. MORRIS, M. D.

PRAIRIE CITY, IOWA.

The Medical Age.

A SEMI-MONTHLY REVIEW OF MEDICINE.

JOHN J. MULHERON, M. D., Editor.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

DETROIT, MICH., JAN. 10, 1889.

Editorial.

THE "REPUTABLE" ABORTIONIST.

Chicago has for some time had the unsavory reputation of being the home of the anarchist. She has now also been proclaimed as the peculiar habitation of the abortionist. It is, of course, not to be implied that all the anarchists or the abortionists of the country reside in the "Windy City," but that these miscreants flourish there with an abandon unknown in other places, would seem to be indisputable. The authorities, it is but just to say, are earnestly engaged in suppressing the anarchist, and the events of the past few weeks seem likely to inaugurate a crusade against those who make a living, in whole or in part, by relieving the human uterus of its unwelcome load. The Chicago abortionists, or at least a few of them, have been caught napping. The freedom which they enjoyed from interference had made them bold, and when a female reporter of the Times, personating the innocent young girl who had loved not wisely but too well, called on a number of them seeking relief, they were unwary and fell into the trap. This reporter writes up her interviews with a very graphic pen, and reveals a condition of affairs which is a very dark blot on our boasted civilization. It has, of course, been an open secret that there are professional abortionists in all large cities—men, indeed, who wish the fact that they are thus engaged, advertised. The more publicity they can achieve and at the same time escape prosecution, the more do they consider their material interests subserved. They are outside the pale of professional recognition and are likewise social lepers—miserable creatures who have sacrificed everything that is honorable and desirable in life to mammon. The Times reporter called on several of these in Chicago, but it is not her interviews with them that have aroused the peculiar excitement attendant on their publication. Had only these miscreants been "shown up" there would have been no special session of the Chicago Medical Society called to discuss the situation.

The reporter called on men who had not been suspected of engaging in infanticide and, without comment, gives their names and a report of her interviews with them. To the honor of the profession, some of these, while treating her kindly, reasoned with her on the enormity of the crime which she proposed, and with great feeling pointed out to her how she might preserve her reputation and her conscience inviolate. Although an absolute stranger to them, some of these true physicians volunteered, without hope of fee or award, to act the part of the good Samaritan to the supposed fallen sister, and so earnestly and sympathetically did they plead with her that in spite of the *rôle* which she was playing, she was moved to genuine tears, and declares in her report that had she been the unfortunate whom she represented herself as being, the kindly words and manner of these good men would have restrained her from adding guilt to her misfortune.

Some of the "reputable" physicians on whom the girl-reporter called, while making a studied effort to be wary, showed themselves not unwilling to undertake the task, with its emoluments, which she proposed. Others would not do the job themselves but directed her to men who would. The presumption is that they have an arrangement with the infanticides through which they are suitably rewarded for their services as "steerers."

At a meeting of the Chicago Medical Society following the Times *exposé* there were present some two hundred and fifty members. DR. THACKERAY moved that the Times article be referred to the judiciary committee as a special subject of investigation. DR. N. S. DAVIS suggested that such action might be premature. "There might be a good many stories yet to come in the Times, and other members might be written up." (Laughter). The motion was, however, adopted. The honor and fair name of the profession of Chicago demand that this matter be thoroughly sifted. While, unquestionably, there are there, as well as elsewhere, physicians who pass as "reputable" and yet are given to the procuring of abortion, it should also be borne in mind that the average daily newspaper is inclined to be sensational. The girl-reporter in the present instance, may have misinterpreted the remarks and manner of some of the physicians on whom she called. It is unfortunate, for the ends of justice, that she did not carry her deception a step further, and have allowed those who expressed a willingness to undertake the task, to take the initiatory to a sufficient length to leave no doubt that they meant "business."

The *exposé*, imperfect though it be, will, however, have the effect at least of making the "reputable" abortionist a little more wary.

DOCTOR VERSUS DRUGGIST.

The relation of the medical and the pharmaceutical professions is, necessarily, very close. The latter, originally an integral part of the former, has not yet developed into an independent existence. Its success is very closely dependent on the support which it draws from its parent. Not content, however, with this support, its members, very generally, seek to supplement their natural pabulum by projecting their tentacles into the field which it is peculiarly the province of the medical profession proper to cultivate. And here is the starting point of the antagonism, which, it is to be feared, is yearly growing more and more pronounced, between the two professions. Properly, pharmacy is the servant of medicine, but the tendency of later years has, unmistakably, been for the servant to set up on his own hook, shrewdly endeavoring, however, to carry with him the patronage of his old employer. This tendency is most marked in the case of the retailer, the wholesaler having discovered that his interests are best subserved by his faithful espousal of either the professional or the trade side of the controversy. Manufacturing pharmacists who have sought to reach the public through other media than the medical profession, have been effectively taught that they cannot serve both god and mammon. They have, in the majority of instances, relinquished all pretentions to professional standing, and have become purely "commercial." The medical profession have, on the other hand, liberally supported such manufacturing pharmacists as have honestly endeavored to preserve intact the true relation of pharmacy to medicine. There is, therefore, no straining of relations in this direction. We have in this country several firms of manufacturing pharmacists whose enterprize has been profitable to themselves while at the same time it has furthered, instead of injuring, the material, as well as the more strictly professional interests of the medical practitioner.

Unfortunately, the clearly-defined relations which exist between the medical profession and the manufacturing pharmacist, do not extend to the retail pharmacist. The latter is, in many and probably the large majority of instances, very directly antagonistic to the physician's material prosperity, and yet succeeds in retaining professional patronage. He blandly solicits the physician's prescriptions, even in the presence of customers who are waiting for him to diagnose, and to prescribe over the counter for, ailments which it is peculiarly the function of the physician to treat. While cajoling the physician he deftly picks his pocket. This is, indeed, a very anomalous condition of affairs, and numerous suggestions have, from time to time, been made for its correction. A number of our correspondents have

pointedly expressed their views thereon, and have supplemented their condemnation with wholesome advice of the regulation quality. But the good which may come from desultory discussion is very problematical.

There is only one remedy against the encroachments of which we complain, on the domain of the physician, and that is concerted action of a nature to compel the druggist either to stick to his last or to relinquish all claims to professional recognition and to go boldly into the grocery business—to teach him that he who is not with us is against us The druggist is certainly a great convenience to the physician—relieving him from the irksome work of dispensing his own medicine, and, incidentally, from carrying on his own books an additional load of bad debts. With the faculty developed by trade he can keep the bottle until he gets his money, displaying a combination of suavity and firmness which would be worth a fortune to the doctor. But, unfortunately, he repeats prescriptions, makes up a "little something that will help you" and sells patent medicines. By each of these peccadilloes he "neither enriches him and makes us very poor, indeed," by cutting us out of legitimate fee. He charges no more, for instance, for the "little something to do you good" than he would if the same "little something" were ordered on the prescription blank, *secundum artem*, brought from the physician's consulting room.

The remedy suggested can only be applied through the mandate of the profession in national convention assembled, or, in other words, by resolution of the American Medical Association, religiously, obeyed. Let this representative body declare it to be unprofessional, and derogatory to professional interests, for its members to allow their prescriptions to be dispensed by druggists who are guilty of "repeating," counter-prescribing, or vending nostrums, and the first step will have been taken towards the eradication of the abuses complained of. The struggle for existence is yearly becoming more and more fierce, and as "self-preservation is the first law of nature," it would seem a very proper thing for the Association to take some such action. It would soon be followed by such a laying-in of drug supplies by the medical practitioners as would compel the obedience of the druggists.

CREASOTE IN PHTHISIS PULMONALIS.

Dr. Beverley Robinson, Professor of Clinical Medicine at Bellevue Hospital Medical College, contributes an article detailing his experience with creasote, to the January number of the American Journal of the Medical Sciences. The experience dates back some twelve years, and has been sufficiently extensive to warrant him in making deductions therefrom. Ten years ago he delivered a clinical lecture on the subject, in which he stated: "For several months, both in the Out-door Department of the New York Hospital, at Charity Hospital and elsewhere, I have given dessert-spoonful doses of the mistura creasoti of our Phamacopœia, to lessen the quantity of sputa in phthisis. I am very much pleased with this remedy, and believe it merits a very extensive trial. No doubt, in lessening the abundance of the expectoration, it also diminishes the frequency of cough." At that time he regarded the creasote as being good only as an anti catarrhal agent. His subsequent experience has not only confirmed his good opinion of the action of the drug, but has also enlarged his conceptions of *modus operandi*. In 1885, in a paper read before the American Climatological Association, he said: "Precisely the way in which creasote is most useful is, perhaps, difficult to state. By its antiseptic action it is possibly destructive of bacilli; by its local action and general effect it is certainly of value in combating catarrhal conditions. Where purulent cavities exist, it tends to destroy, or neutralize, putridity. * * * In many instances they (creasote inhalations) allay cough better than any cough-mixture, and they are certainly free from the great objection of destroying appetite, as opium and morphine frequently do." He now shares with Bouchard and Gimbert, the opinion that creasote acts locally on the pulmonary lesion, promoting the growth of fibrous tissue around an area of consolidated or broken down lung structure. When recovery from phthisis takes place it has been found by Jaccoud that it occurs through this sclerotic change.

A practical point on which Dr. Robinson strongly insists is the employment of the pure *beechwood* creasote, the "commercial" article (nothing more or less than crude carbolic acid, from the distillation of coal-tar oil) being not only worthless, but dangerous. So great is the necessity of employing the wood creasote and so great is the danger of substitution, that he specifies the two preparations in which he alone has confidence, as those of T. Morson & Son, of England, and Merck, of Germany.

The method of exhibiting the drug is internally (*per os*) and by inhalation. At the commencement small doses only should be taken and should be very gradually increased. From three to six minims a day is the proper commencing quantity, and it should not be increased till after the lapse of many months. Whisky and glycerin make the best vehicle, and the following is Dr. Robinson's formula:

℞ Creasoti (beechwood), ℥vj.
Glycerini, ʒ j.
Spts. frumenti, ʒ ij.
M.

In hospital practice, for convenience' sake, or

rather so as to give the patient a sufficient supply of medicine to last until his next visit to the hospital, tablespoonful doses of this mixture are given, each tablespoonful containing one minim of creasote, and to it are added two tablespoonfuls of water. This addition is made to prevent irritation of the throat in swallowing the dose. It also obviates irritation of the stomach in some instances. The dose is ordered every three hours, so that if it is taken with absolute regularity the patient gets eight minims of creasote in twenty-four hours. This is rarely the case, as, owing to sleep or other causes, one or two doses are usually omitted.

It is well to add that only pure whiskey and glycerin should be employed, and as the latter is frequently adulterated, and hence injurious, PRICE'S or BOWERS'S glycerin are mentioned as being probably the best.

If creasote be administered in cod-liver oil, the amount of oil must be at least one drachm to the minim of creasote, in order to obtain a proper dilution of this drug. Otherwise, if cod-liver oil be indicated for a patient, it is desirable to give it separately, and order the creasote to be taken in the manner first advised.

In a very large proportion of cases of pulmonary phthisis that Dr. R has treated during the last year or two, whilst creasote was taken internally, antiseptic inhalations were also used by means of the perforated zinc inhaler. As a rule in the beginning, the inhaler was worn during fifteen or twenty minutes every three hours, and from ten to twenty drops of the inhaling fluid were poured on the sponge of the inhaler at least three times in twenty-four hours. The inhaling fluids most frequently employed are:

1. A combination of iodoform, creasote, eucalyptus, chloroform, alcohol, and ether, seemingly a somewhat formidable mixture in view of its numerous constituents, but a very rational one when explained in detail.

2. Iodine, creasote, carbolic acid, and alcohol.

3. Creasote and alcohol.

The first one of these inhalants is a modification of one taken from LAUDER BRUNTON; the second is that of DR. COGHILL, and, according to R. DOUGLAS POWELL "is a favorite and much used one." The following are the precise formulæ:

℞ Iodoformi, gr. xxiv.
Creasoti, ♏iv.
Ol. eucalypti, ♏viij.
Chloroformi, ♏xlviij.
Alcoholis, ætheris, ää q. s. ℥ss.
M.

℞ Tinct. iodi ætherealis,
Acidi carbolici, ää ʒij.
Creasoti, ʒj.
Sp. vini rect., ad. ℥j.
M.

℞ Creasoti, ʒj.
Alcoholis, ad. ℥ss.
M.

This interesting report is supplemented by an analysis of 143 cases in which the effects of the treatment on the cough, lung-lesion, night-sweats, appetite, weight, etc., are given in detail. It must suffice for us to say that they were so highly satisfactory, in a large percentage of the cases, as to call for a general employment of the agent in the treatment of this grave affection.

CASCARA SAGRADA IN RHEUMATISM.

Rheumatism is, *par excellence*, the disease to which the mind has been said to revert when it is said that the affection over against which is set the greatest number of "sure cures" is the one which is the least amenable to treatment. We believe, however, that this aspersion, together with the twin heresy, perpetuated from the days of ABERNETHY, or some of the other back numbers, that "six weeks" is the best remedy for rheumatism, has become well nigh obsolete, in the light of our advanced pathology and therapeutics. For any one now-a-days, to aver that we have no remedy in the materia medica for rheumatism, would be for him to declare himself a mossback. But occasionally the case will present in which salicylic acid and its salts, iodide of potassium, black cohosh, etc., fail. What seems to be demanded in such cases is an effective eliminant, and it is probably because of this property that cascara sagrada has recently come into such prominence as a remedy in this affection. Certainly the somewhat empirical tests which are being made of the efficacy of the drug, are resulting in the accumulation of some very flattering testimony to its value. The standing of the practitioners who have made these tests is a sufficient answer to any charge that may be made of the "booming of the new remedy." We are not aware that any explanation of the *modus operandi* of this new therapeutic action of cascara sagrada has as yet been attempted, such articles on the subject as have come under our notice consisting of the pure statement of facts. We know, however, that this drug has a very decided influence over the eliminative functions, and it is but reasonable to look for the secret of its efficacy in rheumatism in this direction. A writer in the British Medical Journal has found that a combination of the drug with the salicylates is especially efficacious. The salicylates act by the antidotal property of the salicyluric acid which they form in the blood. The desirability of an eliminant in conjunction with this action is apparent, and cascara sagrada is, probably, beneficial as it is through this property.

Enough has already appeared in connection with the drug to warrant the most conservative in giving it a trial, and more particularly since its value as an adjuvant to other remedies is so pronounced. We should be pleased to receive reports of the results of its use in the hands of our readers.

Notes.

The Journal of the American Medical Association says, anent the recent exposure of the "reputable" abortionists in Chicago: "After all, we may trace the origin of this matter, in a great measure, to our system of medical education, and to the attitude of the public and the newspapers in regard to higher medical education and State regulation of medical education and practice." This, it seems to us, is very far-fetched. To make good the statement, it will be necessary to discover the professional acquirements and the *alma mater* of each of the physicians exposed. Some of the offenders belong to the Chicago Medical Society, in which they occupy a good standing, and have the reputation of being well educated. Had our contemporary charged the crime of abortion to the over-crowded state of our profession, which makes it a difficult matter in many instances for the highly-educated physician to make an honest living, we should have agreed with it. But there is no necessary connection between the low standard of medical education and the over-crowded state of the profession. Instance, the over-crowding which exists in England, as well as in this country.

One of the "reputable" abortionists on whom the *Times* girl-reporter recently called for relief from an imaginary fœtus, gave her the following startling revelation of the peculiarities of her sex: "You need courage and presence of mind. In spite of all I might do for you you might ruin your health for life by giving way to fright. That's the reason, I say, why women folks are funny. You can't tell what they will do when the critical moment comes. A woman may think she has no end of pluck until the very time. Then I have seen them weaken down and lose every bit of sense and control they had. Others who were more timid beforehand, I've seen rally to the very sticking point when the time came. I was called in consultation a short time ago, over a woman in care of a good physician, under the circumstances that you are in. Her doctor was out. The case took a slight turn and she took alarm and sent for him in haste. He could not be found and another was called. He refused to have anything to do with the case until she told him all the facts. What did she do but up and tell the whole thing, and thus give her doctor away. In an hour the latter returned, but it was too late to save the story. This is what the doctor has to contend with."

President Angell, of the University of Michigan, devotes a large portion of his annual report to the Board of Regents, to a consideration of the advantages and the disadvantages which would accrue to the Medical Department of the University from a transfer of the clinical teaching thereof to Detroit. His weighing of the *pros* and *cons* is, in the main, fair and dispassionate, and his conclusion quite inevitable. His own conviction is that it is inexpedient to transfer any portion of the work of the University to Detroit. It is to be regretted, however, that the distinguished President should so far forget himself as to permit him to cast a slur on the Detroit medical schools, whose classes, he says, "are largely made up of those who wish to take a short course in medicine, and are not willing to take the three years' course" of the University. This reflection is quite gratuitous, and very unworthy its author. The interests of the medical department of the University cannot be subserved through the detraction of its rivals. The medical schools of Detroit are, moreover, not dependent for their support on State patronage, and inasmuch as those who conduct these so called "short course" schools are called upon to contribute to the support of the institution which thus attempts to lower them in the estimation of the public, their contributions will not be given with as good grace as formerly. The Medical Department of the University does not itself reside in a structure absolutely without glass. If it should meet with opposition from unwonted quarters in its biennial request for an increased appropriation, from the present legislature, its diplomatic President must not be surprised.

Some of our esteemed contemporaries, taking their cue from the American Lancet, of this city, are criticizing as a fact, the establishment of a department of pharmacy by the Michigan College of Medicine and Surgery, of Detroit, the fees for which are six dollars. The American Lancet is, of course, a reputable journal, and when the peculiar love which its editor is known to cherish for the Michigan College of Medicine and Surgery is borne in mind, it would, perhaps, be impossible for one to believe that he would deliberately make a false statement concerning the institution. Truth, however, compels us to state that the Michigan College of Medicine and Surgery has *not* established a department of pharmacy, that it does *not* charge a fee of six dollars for instruction therein, and, we are requested to declare, that our esteemed contemporaries are circulating a bald-headed falsehood when they assert to the contrary. The purpose of the Lancet in setting the statement afloat can only be conjectured by those directly interested in the College. "The dignity of the profession" certainly cannot be advanced by statements so void of truth.

Medical Progress.

THE TREATMENT OF PSORIASIS.—Dr. J. V. Shoemaker, in an article on The Cause and Treatment of Psoriasis, published in the Dec. Med. Bulletin, discusses the treatment of this intractable affection as follows:

From the brief account thus given of psoriasis, it will be seen that, once recognized, the disease is not only amenable to treatment, but can be cured. The cause of the affection, as has been stated, is, however, too often passed by unobserved, and then the treatment—by the usual routine, arsenic method—is frequently followed by a failure to cure the disease, or relapses after an apparent success. The treatment to be pursued in any case of psoriasis, therefore, depends always upon the exciting cause. The majority of those suffering from the disease will require hygienic measures, together with internal and external medication. The most important hygienic rules to be followed consist in plenty of exercise, especially in the open air, with a judicious amount of bathing, in order that the skin, that has been rendered inactive by the infiltration, may take upon itself some activity, and be thus enabled to free the system of the morbid products that assist in keeping up the inflammation. Passive exercise may be instituted, and the skin rendered pliant and active by systemic massage. The latter means is most beneficial in chronic cases of psoriasis by awakening the dormant state of the skin, lessening the thickened, leathery condition that follows from long-continued infiltration, and becomes a most useful agent in promoting the activity of the skin and in assisting in relieving and curing the disease. The rule in treating psoriasis is usually to apply some stimulating preparation or dressing to the red and thickened patches until the morbid condition yields to the local application. The glands of the skin to which the application is thus made, unfortunately, often become filled with the substance employed, and the skin, as a result, becomes inactive; the morbid products yet remaining within, in place of being forced out upon the surface, become in turn active factors in again producing infiltration of the integument. Exercise and bathing, with, in very chronic cases, massage, used in conjunction with the local treatment, which will be alluded to presently, will not only thus prevent the skin from becoming dormant, but will also restore it to activity and assist materially in relieving and curing the disease. The hygienic rules just referred to, which are the very best means at the disposal of the physician, are most unfortunately in very many instances entirely neglected for the commonly-accepted plan of treatment by arsenic and stimulating ointments.

In reference to the employment of internal medication, cases of psoriasis depending upon rheumatism yield well to either of the salicylates, oil of wintergreen, acetate of potassium, digitalis, and the sweet spirits of nitre, quinine, antimony, turpentine, and the iodide of potassium. The iodide of potassium, to which reference has just been made, is one of the very best agents for eradicating the disease in rheumatic patients. Grave, Boeck, and Holland have reported a number of cures from the iodide of potassium in large doses. Again and again have I observed also in many cases the curative action of this drug in large and frequently-repeated doses, often from ten to thirty grains being taken every three or four hours during the day. The class of cases, however, in which this drug in my experience has been most beneficial has been those having either a rheumatic or gouty condition of the system. Gouty subjects having psoriasis often do well on colchicum, guaiac, the preparations of lithium, and the various alkaline waters. Cases in which the disease owes its existence to a nervous origin require phosphoric acid, oxide of zinc, nitrate of silver, the proto-chloride of gold and sodium, arsenic, and often the addition of galvanism. The anæmic do best upon the preparations of iron and arsenic, and those arising from imperfect assimilation can often be cured by a proper course of dietetics, with the use occasionally of cod-liver or chaulmoogra oils.

In concluding the recommendation for internal treatment, I have purposely left the reference to the use of arsenic to the last agent of which I shall speak. Arsenic, in one or the other forms in which it can be given, while a valuable agent for the treatment of chronic psoriasis, yet in very many cases is a much abused remedy, upon which too much dependence is placed. No sooner is the disease recognized, very often, than the patient is at once subjected to a rigid arsenical treatment, and the many other judicious means of managing psoriasis are entirely ignored. The result is, too often, that the arsenic treatment fails to act, and the disease is continued indefinitely or becomes better, to again relapse into its former condition. Arsenic, however, is at times, in cases arising from various causes—providing the proper hygienic rules are adhered to and the secretions are kept active—a valuable agent. It may act well given in the form of one of the solutions, or as one of the salts given in pill form. The best results which I have observed, however, from the action of arsenic in psoriasis, is from giving it hypodermically, care being taken at the same time to keep the skin, alimentary canal, and kidneys active by the hygienic measures already referred to, together with the use of diaphoretics, diuretics, and cathartics, if necessary. In administering arsenic hypodermically, full doses must be given if a good effect is to be expected. The beginning dose should be from one-tenth to one-quarter of a grain of arsenious acid or the arsenite of sodium, increased to one-half a grain every two or three days. The hypodermic injection in fat subjects can be deposited deep into the cellular tissue, and, in lean individuals, in the muscular tissue. Arsenic given in this manner often acts more decidedly in chronic cases of psoriasis than when administered by the mouth. At times, patients will not permit the use of the hypodermic needle, and under such circumstances suppositories of from one-quarter to half a grain of arsenious acid or arsenite of sodium, once or twice a day, will at times prove equally as serviceable.

LOCAL TREATMENT.

Local measures, as bathing and massage, to which I have already referred, with the use of

soap, oil, bandages, and various dressings, are all of great advantage in assisting to remove the infiltration and render the skin active. The thickened skin may also be removed by the employment of any one or the other of the numerous stimulating preparations in the form of medicated soaps, plasters, ointments, solutions, and fixed dressings. Naphthol, or one of the preparations of tar, carbolic acid, creasote, the mercurials, anthrarobin, chrysarobin, pyrogallic acid, may be used, alone or variously combined, and applied in one of the above forms for the purpose of stimulating the infiltration, and thus removing it from the surface. The combination and application of the above preparations and application of the above preparations are now pretty well known to all physicians, and are spoken of at length in all the works upon diseases of the skin, and it will therefore be unnecessary for me to reiterate them in this paper.

In conclusion, however, I wish to again repeat what I expressed as the purpose of this paper—first, that psoriasis is always dependent upon a constitutional cause, as set forth in the observation already made in the opening of this subject. Secondly, that inasmuch as psoriasis is due to systemic disturbance, it can only be cured by removing the exciting cause with hygienic measures, with internal medication, assisted by local applications. The local treatment, while an adjunct in rendering the skin active, is, in my opinion, in no way, conducted alone, capable of permanently eradicating the disease without frequent tendency to relapses.

THE APOSTOLI TREATMENT OF FIBROID TUMORS OF THE UTERUS.—At a time when electricity is occupying such a prominent share of the attention of the medical profession, it may not, perhaps, be out of place to make a few remarks concerning the use of this agent in the treatment of fibroid tumors of the uterus. At the present day, there is little question as to the potency and utility of electricity, both in the repair and destruction of diseased tissue. For the latter effect electricity in the form of the constant or galvanic current is now generally employed, although it cannot be doubted that the induced or Faradic current has a slight action of this nature.

To Dr. Apostoli, of Paris, is due the credit of having first pointed out to us the way that this power of the galvanic current may be safely employed in the treatment of uterine fibroids. Others had tried the same means, but not in the same way, and had used currents that were generally uncalculated and ineffective. The current was set in motion with imperfect knowledge in regard to its intensity, and in ignorance of any definite object to be obtained from its use. Their applications were, as a rule, extra-uterine, and consequently had but little action on the uterus and neighboring parts.

Such was the condition of the electrical treatment of fibroid tumors of the uterus, when, some six years ago, Dr. Apostoli began his investigations in this direction. After studying the effects that certain currents would produce, and measuring the intensity of these currents, he discovered the means of safely directing them through the diseased tissues in such a way that they were either partially or wholly destroyed by the passage of the electrical current. The older methods with their uncertain, variable, and sometimes dangerous results, he has supplanted by a method which is precise, more energetic, better localized, and thoroughly under control. For this purpose he employs a galvanic battery of sufficient strength to furnish from 200 to 250 milliamperes, or units of currents, and an accurate galvanometer graduated to 250 milliamperes.

A characteristic point in the Apostoli practice is that the current should be carried into the cavity of the uterus, or into the substance of the tumor. This object is obtained by the employment of specially constructed sounds and trocars. The sounds are usually made of platinum, to avoid any loss of power by action on the metal. For puncture, for the negative pole a steel trocar may be used, but where it is intended to use the positive pole the point of the trocar must be of gold. The portion of the sound or trocar passing through the vagina should be carefully insulated in order to prevent any action on the mucous membrane of the vagina. This may be conveniently accomplished by means of rubber tubing. The circuit is completed by a cutaneous electrode embedded in wet clay. Nothing has as yet been found more effectual than this wet clay, and currents of high intensity, 200 to 250 milliamperes are passed through the tissues, and brought out through the integument of the abdomen without producing more than a temporary redness. Before each treatment strict attention is paid to antiseptic precautions, and during the intervals between each treatment daily vaginal irrigations with sublimate or phenol are employed.

The labors of Apostoli have expanded our knowledge of the action of the two poles, and have taught us how this knowledge may be employed to advantage in the treatment of these tumors. He began the electrical treatment of uterine fibroids with the positive pole, believing the hæmorrhage, such a prominent symptom in many of these tumors could be effectually controlled by the hard dry eschar, and resisting cicatrix formed from the electro-caustic action of this pole. Experience has proved this to be as good in practice as in principle, and where hæmorrhage is a prominent symptom, the use of the positive pole is usually followed by a prompt relief of this very troublesome condition. The eschar resulting from the alkaline caustic action of the negative pole is, on the other hand, soft and liquefying, and tends to promote hæmorrhage and discharge. Its solvent powers are consequently greater and are applied to an opposite class of cases where hæmorrhage is not a prominent symptom, and where the object is to reduce the bulk and solidity of fibroid masses. The positive pole is sometimes termed the antihæmorrhagic or hæmostatic, while hæmorrhagic or denutritive are the terms applied to the negative.

The action of the galvanic current in the reduction of these growths is, according to Apostoli, twofold. Its primary action is purely local, and depends on the laws of electrolysis. As is well known, when a solution of sodium chloride or any other electrolyte is subjected to the action of the constant current, the acid radicals have a strong tendency to collect

around the positive pole, and the alkaline radicals, an equally strong tendency to become liberated at the negative pole. As the animal tissues contain substances that are amenable to electrolytic decomposition, it is obvious that this is what takes place, when in the form of a metallic electrode, the positive or negative pole of a battery is brought in contact with the mucous membrane of the uterus. The tissues in immediate contact with the electrode are decomposed, the bases and acids of the tissues and fluids acted upon are set free, and produce, according to their nature, more or less cauterization of the surrounding parts.

The secondary action of the Apostoli treatment is due to the interpolar passage of the current. It is a trophic action, influencing the nerves in such a way as to produce a modification in the nutrition of the tissues through which it passes. There are examples of rapid total disappearance of fibroids of considerable size after one or two applications of strong currents, and examples of others that have continued to atrophy for month after a single application. This peculiar effect cannot be attributed to electrolysis, because the effects of electrolysis could not exist after the cauterization resulting from the process had healed, which could not take more than a few days at the most.

That we have in the Apostoli practice a safe, painless, accurate, and rational method of treating these tumors cannot be doubted. It is another addition to our too limited resources in these troubles, and should be welcomed as such by the medical profession. Its introduction and general adoption is still too recent to furnish any reliable statistics, aside from the fact that statistics form an especially unsafe, if any, basis for any surgical procedure.

There are certainly conditions of fibroid tumors where it would be useless to suggest electricity, as, for example, a polypoid growth from the mucous surface of the uterus, and projecting into its cavity, or a small subperitoneal outgrowth from the body or fundus of the uterus, where myotomy would be the work of a few minutes, and the risk very slight. It is in large solid tumors of the uterus, the removal of which means the removal of the greater part of the uterus, where the risk is always great, in spite of the greatest skill and experience on the part of the operator, that electricity should be allowed to show its power.

As a last word, we may say that when the object is mainly to suppress hæmorrhage, or when the tumor is large and surgical interference more or less hazardous, it would seem more wise and charitable to suggest the use of electricity than to recommend an immediate cutting operation, since in the case of the failure of electricity to bring about any improvement, the more formidable operation is still available as a last resort.—Dr. J. D. Daniels, in the *N. Y. Med. Times*, Dec., '88.

THE TREATMENT OF HEMORRHOIDS.—Great interest centres in the treatment of hemorrhoids, both from a medical and surgical standpoint, and for several years past the rectum has proven one of the most fruitful fields for the specialist. The surgical treatment of rectal affections vies with the great advances in abdominal surgery for supremacy, and the brilliant achievements in cerebral surgery have no charms for the laity in contrast with the painless relief of hemorrhoidal tumors. The use of the knife is considered most dangerous, and few are willing to submit to the ordeal except as a last resort. In as few words as possible, therefore, we shall endeavor to point out some of the more popular methods of treatment now in vogue, but before doing so it would be well to consider the propriety of viewing the matter from a medical point of vantage, and indicate the measures to be adopted for the relief of the cause in its incipiency, for cause there must be, else we should not have such an innumerable throng in the throes of distraction from so simple an ailment.

Is it not quite probable that many cases of so called piles are merely a local manifestation of disease of some other part of the system? It is well known that liver affections are intimately associated with congestion of the abdominal viscera, and that abscess of that organ is not infrequently associated with dysentery and proctitis as well as with uterine engorgements, and when one is on, the other is off. Shall we assume that the abdominal vessels do not partake of this derangement, and that during the progress of disease, their integrity is constantly maintained? The increasing army of quacks who have grown fat upon the treatment of diseases of this class would be a positive answer in the negative; but since the treatment of piles has ranged within the confines of legitimate medicine, there is no longer any bar to its practical consideration in the medical journals. That these quacks have often succeeded in the successful treatment by methods which were asserted to be painless is evidence that not always is there a demand for surgical interference, and it is suggested that by attention to the physical conditions we have named much can be accomplished without resort to the knife.

The surgical measures recommended are numerous, but the more important of them may be enumerated as follows: Whitehead's method consists in the dissection of the pile-bearing mucous membrane and bringing it down to the verge of the anus, where the healthy portion is united and the diseased portion removed, all bleeding vessels being twisted in the course of the operation. This plan has many advocates, and the only objection urged is, that it is such a formidable operation that few who understand it will submit. Allingham advises the use of the ligature before making the incision. Weir recommends for slight cases the injection of carbolic acid, ligature when the tumors are of considerable size, but when there is extensive hemorrhoidal disease he thinks excision should be practised. Several years ago Kelsey reported a series of two hundred cases treated by the injection of carbolic acid, but lately he has discontinued this practice, and now recommends the clamp and cautery, and where the surgeon has the conveniences at hand, this method on the whole is probably the most acceptable, and one, too, which may be relied upon as comparatively free from danger. But it should not be forgotten that should the conditions remain favorable for the development of hemorrhoidal tumors, the same effect will again be produced. Being a comparatively simple

operation, it does not appear so formidable to the patient, and doubtless this method is the most popular now practised, although it is not entirely free from danger. The patient is allowed to go about his daily work, and is, therefore, in danger of embolus, and possibly an abscess of the liver may follow as a result. In the British Medical Journal for October 13, 1888, Mr. F. Swinford Edwards has reported a series of thirty-eight cases treated by this method which were mainly successful, and in few of them but one or two injections were practised, and he regrets to learn that Kelsey has abandoned the plan. The formula is as follows:

℞ Carbolic acid, gr. xij.
Glycerin and water ää ʒ j.

About two and a half minims of this solution (1 in 10) is injected into the centre of the tumor, and in but one case was the injection repeated four times, the tumors gradually disappearing.

The method by dilatation has its strongest advocates with the French surgeons, and while requiring that the patient should submit to an anæsthetic, it is claimed for this plan that the relief is nearly always immediate, and in the majority of cases will be permanent. It is one of the plans which has been so successfully worked by the irregular practitioners, and may be adopted with the hope of a reasonable degree of success, but it must be thorough to be efficient. The sphincter is to be distended till all resistance is overcome, but it should be done gently, to avoid rupture, which is regarded as an unfortunate accident.

In this category, however, medical measures are not to be overlooked or underestimated. Hamamelis has strong advocates, and in suitable cases along with appropriate treatment, many physicians are prepared to report numbers of severe cases which have kindly yielded to their entreaties with this harmless substance. Ergot, applied locally, is another remedy having supporters, while the internal administration of small doses of aloin ($\frac{1}{10}$ grain at bed-hour) has been highly lauded for years past. The most recent of local remedies is a species of water germander, known as teucrium scordium, which may be used either in the form of a suppository made with lanolin, or introduced in a gelatin capsule in the form of a dry powder, or used as an ointment. Dr. Aulde has found it an exceedingly useful remedy when used in the early stages of the disease, before the appearance of large hemorrhoidal tumors, but, of course, only slight benefit can be expected from remedies of this class until the cause of the local congestion is remedied, which should always be attended to by appropriate measures. Sphincterismus, itching, and the most stubborn cases of insomnia will be relieved by the judicious application of this simple remedy. Try it.—*Med. Register*, Nov. 24.

SACCHARIN.*—In view of the enormous increase in the use of saccharin for the purpose of sweetening foods, beverages, and medicines, we have been led to institute experiments, with the view of determining whether this substance is poisonous or not when given even in excessive quantities; and, if not poisonous under these or other conditions, whether its use in moderation interferes with the digestive processes, so as to render it advisable to forbid its use as a substitute for sugar. That saccharin is not a food is manifest; but there are so many circumstances under which the use of a sweetening agent in place of sugar is desirable, as to render it advisable to determine, if possible, whether the dietetic use of saccharin is innocuous.

1. As to the non-toxic nature of saccharin we have no doubt. Reliable continental experimenters have admitted this, and we have confirmed their observations. To an underfed dog we gave daily for five days two grammes of saccharin (equal in sweetening power to more than a pound of sugar), in addition to food *ad libitum*. The animal increased in weight, and no inconvenient results were observed. We mixed large quantities of saccharin with the food of mice: they ate of the mixture *ad libitum*, and for a considerable period, and in no single case was there any manifest action on the health of the animal.

2. As saccharin has decided antiseptic properties, and is capable, in sufficient quantities, of stopping the action of organized ferments, we ascertained its extra-corporeal action on the soluble ferments, and found that in respect of the peptic digestion of fibrin 0.1 per cent. of saccharin has no retarding influence, whilst 0.25 per cent. shows the process decidedly, and 1 per cent. greatly retards it: 0.1 per cent. of saccharin is the equivalent of 30 per cent. of sugar—an impossible dietetic quantity. The diastatic solution of starch was not hindred by 2 per cent. of saccharin. The ammoniacal fermentation of urine is retarded when saccharin is added to it, or when saccharin is taken—an important fact in clinical medicine. The putrefactive decomposition of a pancreatic digestive mixture we found was not prevented by the admixture of saccharin to the extent of 1 per cent.

Experiments on the extra corporeal action of saccharin on the digestive ferments are, however, of no significance in determining the effects which saccharin would have when taken with food, since they involve the maintenance of a constant fairly strong solution of saccharin in the digestive medium—a condition which does not obtain when saccharin is taken, since this substance is quickly absorbed, and is excreted in the urine.

The following experiment was made for the purpose of exactly determining whether saccharin influences gastric digestion. Two similar dogs, after having fasted for thirty days, were each fed with 300 grammes (about 11 oz.) of lean beefsteak, equally cut up and divided. The 300 grammes of steak contained 69 grammes (*i. e.*, 23 per cent.) of dry solids. No. 1 dog weighed 21 lb., and had no saccharin; No. 2 dog weighed 15½ lb., and had one gramme of saccharin (equal in sweetening power to more than 8 oz. of sugar) with his meat. Five hours and a half after the meal the dogs killed with chloroform, and the contents of the stomach and intestines carefully removed from each animal. The small intestine in each case was

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empty, except the duodenum, which contained a small quantity of digestive mixture that had passed from the stomach; and at the lower end, just above the large intestine, there was material obviously of older duration. In each dog the stomach contained some undigested meat. The dry weight of the stomach and duodenum of No. 1 dog was 23 grammes, or 33 per cent. of the dry meat taken; whilst the similar dry weight in No. 2 dog (which had taken saccharin) was 21 grammes, or 30 per cent. of the dry meat taken. Obviously, the ingestion of a gramme of saccharin, equal in sweetening power to over 8 oz. of sugar, had not in the least interfered with the gastric digestion of the dog. One of us has, moreover, taken considerable quantities of saccharin daily without experiencing any ill effect. The saccharin used by us was "soluble saccharin," which is equal in power to about nine-tenths of its weight of commercial "pure saccharin." "Soluble saccharin" is as soluble in water as table salt, and when appropriately diluted is perhaps indistinguishable in taste from cane sugar, and is free from all the bitterness of flavor met with in the soluble saccharin first brought into the market.

Summary.—We conclude that (1) saccharin is quite innocuous when taken in quantities largely exceeding what would be in any ordinary dietary; (2) saccharin does not interfere with or impede the digestive processes when taken in any practicable quantity; and (3) our personal experience is that saccharin may be taken for an extended period without interfering with the digestive and other bodily functions. Hence there is no reason to think that that its continued use is in any way harmful.—*Lancet*, Nov. 17.

GLYCERIN INJECTIONS IN THE DIARRHŒA AND PROLAPSE OF CHILDREN.—I was led to think of the use of glycerin injections in diarrhœa through some remarks which fell from Sir Joseph Lister when I was consulting him concerning a case of another kind. I have employed it in cases of constipation with excellent results, but the following cases will, I believe, show that it is also useful in certain forms of simple diarrhœa:

Case 1.—A. G. M., male, aged 4, was admitted to the school infirmary, as he appeared to be losing flesh. On admission he was found to be suffering from diarrhœa, his motions being frequent and offensive, and every time the bowels were moved there was prolapse of the rectum to a very great extent. Blood was also passed per anum, and he was in a very weak condition. Various remedies were tried, but he continued to lose weight: and we became very anxious about his state. I determined to try glycerin, and accordingly two drachms were injected into the rectum. This at once checked the diarrhœa, but as it did not entirely cease I repeated the injection on the second day. From this time the boy began to improve, and although the motions thereafter were not nearly so frequent nor so offensive, nor did the bowel come down so much, I ordered a third injection, which had the desired effect. After the diarrhœa and hæmorrhage had ceased the bowel still came down when he had a motion, but as he gained strength very rapidly the prolapse presently ceased to recur. The diet consisted of cold boiled milk and cold beef tea, with port wine and occasionally jelly. This was a very bad case, and the disease had existed for some time before the glycerin was tried.

Case 2.—H. M., female, aged 4, was admitted with diarrhœa and prolapse of the bowel. The attack was very severe, but in this instance no time was lost in trying other remedies, and two drachms of glycerin were at once injected. The effect was almost magical. The symptoms were checked almost at once, and the little patient, who had rapidly lost flesh during the diarrhœa, rapidly put it on again.

Case 3.—N. R., female, aged 6, suffered from frequent diarrhœa, the discharges being very offensive, and accompanied by excessive wasting. She had been in the infirmary some time, and various remedies, with careful dieting, had been tried, but no benefit was experienced until the glycerin injection was used. As in the other cases, only two or three injections were required to effect a cure, and the little girl was soon enabled to resume her school work. There was no prolapse here, and as in the other cases there has since been no recurrence of the trouble.

Cases 4 and 5.—B. F., male, aged 7, and J. F., male, aged 7, had troublesome prolapse of the rectum unaccompanied by diarrhœa. In these cases glycerin injections acted so beneficially that in a few days there was no return of the trouble, and the patients were discharged in good health.

I have also tried this remedy in one or two cases where looseness of the bowels supervened in the course of other affection, such as pneumonia, and the patients' state was such as to render it difficult to decide what was the best thing to give so as to cause the least possible depression. The following cases will serve as illustration:

Case 6.—E. R., male, aged 6, had a severe attack of pneumonia, with a continued high temperature of over 105° for nearly twelve hours. His motions became very loose and frequent, and he was evidently being weakened by the diarrhœa. I at once injected two drachms of glycerin, and it acted with such singular promptitude and success that it was not necessary to repeat it. The temperature fell after the injection, and the disease pursued its normal course.

Case 7.—M. A. S., male, aged 5, also suffered from pneumonia. His temperature was not excessively high, but his lungs did not clear up well as the disease pursued its course, and he became very weak; this was the second attack within twelve months. Diarrhœa supervened here as in the previous cases but was at once arrested by a glycerin injection.

Glycerin has been largely used lately in the treatment of constipation, and the paper of Dr. G. A. Carpenter, in the Lancet, of November 10, 1888, shows that in children it is markedly successful; but I have seen no mention of any cases where it has been used for the opposite condition.

I must apologize for the meagreness of these notes, as when I began to use the remedy I had no intention of ever publishing anything about it. Having, however, mentioned a few of the details I have above given to my friend Dr. Lauder Brunton, he strongly impressed upon me the expediency of calling attention to the facts. I do not pretend to say how glycerin

acts in these cases, though it is possible that both the diarrhœa and the constipation have a common cause. I will for the present content myself with the statement that in my hands glycerin has proved a valuable remedy, especially in the case of children suffering from diarrhœa or prolapse, and moreover that the injections are easily made, that they seem to cause neither pain nor discomfort, and that their beneficial action is very prompt and complete. —George Rice, M. B., C. M., Edin., in *The Practitioner*, Dec , 1888.

THE VALUE OF CONDENSED MILK AS A SUBSTITUTE FOR MOTHER'S MILK.—The writer endeavors to correct some of the false impressions entertained by city practitioners against the more general use of condensed milk as a substitute for mother's milk. He refers to the plain, or fresh variety, which contains no cane-sugar, that is served daily from the wagons. The objections to the general use of cow's milk are that, during the summer months, it is impossible to obtain it fresh and unadulterated in large cities, unless at a cost beyond the reach of the masses, and the difficult digestion of the casein by the delicate infant whose stomach has been damaged by an attack of summer diarrhœa

In view of these deficiencies, he thinks there can be no valid reason against the more general use of the plain condensed milk, as a substitute for cow's milk, for infants living in large cities, when the manner of its preparation is more widely known. In the first place, it is impossible to adulterate condensed milk. The quality and purity of the milk employed in its manufacture is of the best. The milk is delivered under strict contract. The milk, obtained from a large number of cows, presents an average quality that renders it far preferable to the milk of one cow only. Contrary to the statements of some writers on this subject, no cream is removed from the milk before condensing. In the process of condensing, the milk is exposed for an hour or more to 210° F. of heat under pressure, which, according to Soxhlet, is sufficient to destroy any germs it might possibly contain, thereby rendering it practically sterile. The condensing process alters the casein in such a manner that it appears, when properly diluted thereafter, to coagulate in the infant's stomach more like the casein of mother's milk; that is to say, in light flakes, instead of the firm, hard masses into which the casein of ordinary cow's milk is sometimes seen to coagulate. The plain condensed milk may be kept in an ice-box for from two to six days, which is long enough for all practical purposes. Compared with cow's milk, made sterile according to Soxhlet's method, it is far simpler, as the latter must prove complicated in its process of preparation in the hands of the ignorant and careless.

A not unimportant advantage in favor of condensed milk is the fact that it can always be diluted in any desirable proportion to suit either the age of the infant or the powers of its stomachal digestion. It is never known how much ordinary cow's milk has previously been diluted. In the writer's experience, a dilution of one part of condensed milk to sixteen parts of water is the proportion most easily digested and it agrees in every way best with the young infant. After the age of six months he increases the condensed milk from one-half to double the quantity.

It is said that though a child thrives on condensed milk, if it becomes ill it loses fat rapidly. The author thinks this idea may apply to the preserved or canned condensed milk, which is only fit for use on ships and in armies; but as to the plain or fresh condensed milk, there are certainly no just grounds for such statements. The elements of nutrition are precisely the same as in fresh cow's milk; the amount of water is the same as it is commonly prepared; there is no addition of sugar, as is usually the case when fresh cow's milk is prepared for infants; and, finally, in a large observation of many years he has not witnessed such results.

He insists upon strict attention to the preparation of the condensed milk as a food for infants, irrespective of the season of the year. He directs a tablespoonful of the plain condensed milk to be added to a teacupful (equivalent to eight ounces) of water that has been previously boiled and allowed to cool to about 100° F., and a pinch of salt added. He prefers a graduated nursing-bottle; and instructs the nurse in regard to the proper care of the bottle and nipple, and regular intervals of feeding.—*Med. Record.*

CASCARA SAGRADA IN RHEUMATISM.—This well-known drug in the novel *rôle* of an anti-rheumatic was brought to the notice of the profession early in the month of June, 1888, by Dr. H. R. Goodwin, Assistant Surgeon in the U. S. Marine Hospital Service. At this time the author claimed for it remarkable efficacy in true rheumatic affections, and apparently made good his claim by well-stated reports of its power to cure, first in his own person, and later in some thirty cases in his practice. The author exhibited the drug in the form of a fluid extract (fifteen minims *ter in die*) uncombined with drugs of then acknowledged anti rheumatic power (though in some cases after these had been freely given), but guarded by astringent salts of iron in cases wherein it proved too laxative to the bowels.

Since the date of Dr. Goodwin's manifesto, few reports of the therapeutic doings of cascara have appeared in the medical journals, and in the majority of the cases noted the authors, while attributing to it real worth as an anti-rheumatic, have deemed it necessary to further its action by other drugs of accredited value in the treatment of rheumatism. For example, an English physician has recently reported cases in which cascara given with salol (London Lancet; reprinted in a recent number of the Practitioner and News) effected cures in cases wherein either drug alone had failed. A writer in the New Orleans Medical and Surgical Journal, for October, reports two cases of rheumatism wherein cascara, given in half-dram doses (*ter in die*), effected a cure in from four to six days, and though the author attributed the cures to cascara alone, believing that they verify the experience of Dr. Goodwin, it is significant to note that in each case the use of this drug was preceded by the administration, for several days, of other anti-rheumatic medicine, oil of gaultheria being given in one case, and sodium bicarbonate in the other.

Since reading the paper of Dr. Goodwin the

junior editor of this journal has employed cascara in two cases of rheumatism, one of lumbago, and one of possible rheumatic complication, with results which would seem to strengthen the claims put forth by this author. The first case was in the person of a lady, who had rheumatic arthritis of both ankle- and wrist-joints of three months' duration. She came under our care on the 21st of June. She was given salicylate of sodium in full doses to systemic saturation, which was followed by iodide of potassium. This producing but slight amelioration of symptoms, salol was given in like manner, and, later, salicylic acid combined with acetate of potassium. This continued for three or four weeks, the patient suffering the while so much gastric and cerebral disturbance that the drugs had to be discontinued, while the symptoms continued with little if any abatement. At this time we saw the report of Dr. Goodwin, and cascara sagrada, 15 minims (*ter in die*) was promptly prescribed, with the result that a complete cure was effected in the space of three weeks. The drug at first produced a mild diarrhœa, but this was easily controlled by means of small doses of tincture of kino. It is now nearly three months since the patient was discharged, and she has since shown no symptoms of rheumatism.

In two of the other cases the patients were men: one had lumbago, which was not bettered by the salicylates, and the other, rheumatic arthritis of the right wrist, which defied the power of these drugs for the period of one week. Both promptly got well under cascara. The fourth case was in the person of a young lady who has suffered for four months great pain and tenderness in both knee-joints; a complication of subacute myelitis. That the trouble is rheumatic is questionable. Liberal dosage with the salicylates, alternating with salol and iodide of potassium, has proved futile; but under a combined treatment with these drugs and cascara, for a period of four or five weeks, the pain has diminished in a marked degree.

Of the above cases, the first and the third only may be considered as bearing competent testimony to the value of cascara sagrada in rheumatism, since lumbago is probably not typically rheumatic, and a rheumatic complication in case three is mere conjecture; but we have here recorded (with necessary disregard of scientific detail) our experience with the drug to date, for the sake of calling attention to it, and with the hope that our readers will give it a trial in like cases and favor us with carefully written reports of them.

A collective investigation of the performances of this very empirical remedy, when exhibited in rheumatic and rheumatoid affections, will make either a valuable new chapter in therapeutics or stop the reckless waste of a very useful and somewhat expensive drug.—Editor of *Amer. Pract. and News*, Nov. 24, 1888.

URECHITES SUBERECTA.—A correspondent of the AGE sends the following contribution:

We have received an inaugural dissertation by Mr. Minkieviescz, entitled "Contribution to the Knowledge of the Active Constituents in Urechites Suberecta." The investigation was made in the pharmacological institute of the University of Dorpat, under the assistance of the eminent scientists, Prof. Dr. Rudolph Kobert and Prof. Dr. Dragendorff. It goes with detail into the chemical composition of the drug, into the toxicology of the same, etc., giving a large number of experiments, and giving the results of 36 experiment with the active principles derived from said drug on different animals. To our readers particularly the resumé of the results will be of interest. The results condensed have been proven to be the following:

1. In the drug urechites suberecta there are two poisonous principles contained, which can be separated one from the other—a glucoside and an acid resin.
2. Both bodies are equally poisonous and give us the same symptoms of poisoning.
3. They are not protoplasma poisons.
4. They influence the axio-motoric apparatus of the heart and the heart muscle, and kill through heart systole.
5. They cause central and the peripheral irritation of the vagus, with resulting paralysis of the vagus.
6. They increase the blood pressure through stimulating the heart's activity, then reduce it through decrease of the heart's frequency and heart's energy.
7. They exert no influence on the peripheral vessels, possibly on the intestinal vessels.
8. The central nervous system is influenced in the sense of a paralysis.
9. They probably reduce the working capacity of the muscle.
10. They are emetics of a central action.
11. They produce changes changes in the intestines which cause an increased peristaltic action.
12. They cause an increased secretion of the saliva.

The author states that after the experiments made on animals, he could not make up his mind to experiment with the active constituents on man, especially as he could not theoretically deduce in which symptoms urechites suberecta could be theoretically supplied. As an emetic, laxative or heart poison, it is inferior to some remedies already known and cannot replace them.

Convinced, therefore, that urechites only deserves, he is sorry to say, a purely toxicological interest, he found it advisable to discontinue the therapeutic part of his investigation.

JAMBUL IN GLYCOSURIA.—Recognizing the importance of recording results for and against specific remedies on their trial, I beg leave to submit my first experience of jambul:

Mr. X. Z., about sixty years of age, a teacher of the violin, consulted me last May. He has suffered from syphilis contracted in youth, and brain troubles. He was once in Earlswood Asylum, and had also to live in enforced retirement for a short time some year or two ago. He has had diabetes to his knowledge eight or nine months. During this time he has suffered from general nervousness and confusion of ideas, rendering him unable to play at frequent intervals. He says that he loses consciousness, and "talks of things he should not mention." His appetite is keen, but he does not suffer much from thirst. His appearance is robust. He walks a good deal. He struggles

hard for his bread, under adverse circumstances; and is troubled with pruritus ani.

I found his urine to be of specific gravity 1020, and to contain a considerable amount of sugar. I put him at once upon jambul, two grains three times a day. In about three days' time, according to volumetric analysis, which, however, was not conducted with standardized solutions, there was a diminution of the sugar; at the end of a week none could be detected. I then told him to discontinue the drug, and found that the sugar returned. On resuming jambul it again disappeared. I found that this cycle of events could be brought about with certainty as often as desired.

Though he gained much in self-control and steadiness during the treatment, he felt that while under the influence of the drug he experienced considerable temporary depression. I therefore ordered him to take only four grains a day, and that on alternate days. This he continued to do for some time. On August 30, nearly four months from his first visit, he sent me a sample of his urine from the north of England. I could detect no sugar in it. As he had no other treatment, and continued his ordinary (partially restricted) diet, the fact seems established that the drug prevented the glycosuria. I had at first an idea that possibly the drug merely vitiated the ordinary test, but on substituting other reagents I could not find any trace of sugar. The busy life he led in his struggle for existence, prevented any observation of the total daily excretion. The specific gravity never varied.

It may be observed that cerebral excitement prevailed during the time he was suffering from the glycosuria, and that the effect of the drug was to cause depression. This and the improvement in the glycosuria may possibly be due to a depressing action of the drug on the vasomotor centres.

NOTE.—Since writing the above this patient has again consulted me. He is much quieter, and believes he is cured of the diabetes. He passes less water now than he has done for a year or two back.—GEO. MAHOMED, M R.C.S., in *The Practitioner*, Dec., 1888.

THE DIETARY OF ASTHMATICS.—In an article on the treatment of bronchial asthma, Dr. C. T. Williams, physician to the Brompton Hospital for Diseases of the Chest (American Journal of the Medical Sciences, August, 1888), speaks as follows, concerning the dietary of these patients: Asthmatics, from necessity, become spare feeders, and are often very thin. In so many cases a heavy meat meal is followed by an attack that a restricted dietary is inevitable. To certain asthmatics certain articles are specially injurious, while to others they are not so.

The dietary which suits most asthmatics is that which limits them to two meat meals, viz., breakfast and lunch or early dinner, and restricts their food for the rest of the day to liquids, with only bread, toast, or biscuits as solids; the great principle being that the asthmatic should retire to bed with gastric digestion quite complete, and thus preclude any pressure upward against the diaphragm from flatulent accumulations in the stomach. Where there is much dyspepsia, and especially where flatulency occurs immediately after meals, it is advisable to omit sugar and starch from the dietary and to avoid potatoes, and in these cases a little alcohol in the form of whiskey, or brandy and water, should be taken with lunch or dinner. Coffee is generally a suitable beverage, and should be taken at least once a day, black, as it distinctly lessens the spasms without rendering the patient sleepless, whereas, tea, though it is a product of the same natural order of plants, acts in a different way and often increases the neurosis. Various meat extracts, such as Brand's and Valentine's, and strong beef-tea, especially when taken warm, are excellent, as they are easily assimilated, and enable the patient to get over the asthmatic attack without great prostration.

It need hardly be added that all articles of food which are in themselves more or less indigestible, such as pastry, pickles, uncooked vegetables, salads, garlic, and fruit, except when perfectly ripe, and we may add cheese in its various forms, and richly dressed or highly flavored dishes are to be strictly avoided.—*Dietetic Gazette.*

VALUE OF THE NEWER DRUGS.—The value of the newer drugs in general practice has resulted in the development of the fact that many valuable medicines are included in the list. Much credit is due to the pharmacists who have spent much time and money in making preparations and furnishing samples free to physicians, to be tested in practice. Prominent among them—most prominent, we should say—is the firm of Parke, Davis & Co. Much credit is also due to the enterprise of the physicians who have been the pioneers in proving the efficacy of these new drugs. But we have still to deplore the fact that the majority of our members are too conservative. It seems to us a shame and a calamity that many of our communities are deprived of the "healing" in the "wings" of cascara sagrada, grindelia robusta, pichi, manaca, and many other valuable late additions to our armamentarium.

The object of these remarks is to urge editors and contributors of our medical journals to call attention to the value of these drugs, and to urge all physicians, old and young, city and country, to get out of the old ruts, to abandon routine, and to make a fair, honest effort to do the most possible good for those who so wholly confide in their skill and devotion. In no department of human civilization has there been more progress than in the one under consideration, and yet there are thousands of doctors in our country who do not employ a half dozen medicines that they did not use fifteen years ago.—*Indiana Med. Jour.*, Nov., '88.

COCAINE IN PLEURISY.—Dr. Marsh writes to the Br. Med. Jour., with reference to the use of cocaine for the relief of pain in pleurisy. He recommends that one-fifth or one-fourth of a grain be injected subcutaneously at the most painful spot, and the injections repeated once or twice daily. He claims that not only is the pain relieved, but that cocaine is superior to morphine for this purpose, as it is free from many objectionable secondary effects, such as constipation and a tendency to pulmonary congestion, while by contracting the vessels a most decided check is put upon effusion into the pleural cavity.

The Medical Age.

Vol. VII. DETROIT, JANUARY 25, 1889. No. 2.

Original Articles.

INFANTILE CONVULSIONS.*

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The subject of infantile convulsions is not a trifling one, as one of the first stories I heard related after my entrance into the profession regarding one of the numerous "Doc. Sifers" of the early times, would indicate. This traditional boaster announced that, if he could only turn any case he was called on into "fits," he was all right, as he was "h—l on fits."

The majority of cases to which the young practitioner is called are emergencies, and a good percentage of these are our petted darlings of the household in the struggling spasm. It would be superfluous on my part to describe an attack of eclampsia. A simple seizure does not differ from epilepsy. except that the latter is characterized by its chronic course, and sudden recurrence and freedom from fever. It goes without saying that a convulsion is in itself not a disease, but a symptom of a pathological condition in the organism, and yet that this fact is often overlooked is evidenced by the mortality records of the city of St. Louis, which are made up from the death certificates furnished the health department by the legal practitioners of the city, all of whom, under the law, are graduates of medical colleges.

In 1886, 441 infants were reported as dying of "convulsions," and in 1887 the number was 437.

It seems to me clear that our first duty is to determine the cause of the paroxysm, and, if possible, remove it, instituting at the same time efforts towards calming the agitation. Intelligent treatment certainly demands the ascertainment of the cause first if possible, in spite of the fact that HENOCH, the great authority of Berlin, in his text-book based upon thirty-seven years of metropolitan practice, says: "If you are called to a case of this kind and find the child in convulsions, no time is left to enter into the cause of the attack, and you must immediately begin treatment." After announcing free and almost careless administration of chloroform (even leaving it to nurses) as being the sheet anchor, he says: "As soon as the convulsions have ceased, the cause of the disease must be taken into consideration."

The fallacy of this statement can best be illustrated by the following case:

Joseph M., aged 18 months; September, 1883, at 3 P. M., taken with spasm; physician summoned, who administered chloroform during continuance of attack of more than half an hour, at end of which time child became quiet, and bromide and chloral were ordered to be given to prevent a recurrence. Medical attendant left assuring family that the child was all right, but that he would return that night and visit it. One-half hour later convulsions returned with increased violence, and on being summoned I at once placed my thermometer in the rectum and discovered a temperature of 107°. A cool bath promptly relieved the spasm, having reduced the temperature; the child remained asleep and tranquil for two hours. The nervous symptoms again pointed toward spasm; the thermometer in the rectum marked 105°; another bath relieved the trouble. The case developed into a malignant scarlet fever and death was the result.

Whatever be the cause, whether light or serious, it should be removed as promptly as possible. The chronic tendency to convulsions known as epilepsy has much of habit in it; each succeeding fit that comes, prepares the brain for another, and the trivial convulsion, whether caused by indigestion, dentition, fright, excitement or high temperature, unchecked at its first onset, may develop the chronic epileptic or the idiot.

Heredity is a very important factor.

Some children upon the slightest provocation may be thrown into a convulsion; with such the parents have been, as a rule, similarly affected. BOUCHUT relates the history of a family of ten persons, all of whom suffered in their youth from convulsions. One girl of this family married, gave birth to ten children and nine of these suffered from eclampsia.*

The majority of convulsions of infantile life are of reflex origin, owing, no doubt, to the predominance of the spinal over the cerebral

* Read by invitation to the McDowell Medical Society, annual meeting at Henderson, Kentucky, November, 1888.

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*Vogel.

system in early life. As the brain develops and becomes better organized, increasing in size and power, and diminishing in friability and sensitiveness, convulsions become more rare in occurrence.

A brief reference to the various disturbances entering into the causation of infantile eclampsia, is in order.

The first essential is the neurotic diathesis; a weakened nervous system and consequent increase of irritability dependent on loss of blood, mal-nutrition, expressed by anæmia, loss of flesh, rickets, malformation and defective ossification; or the diathesis may be due to inheritance from an historical, highly nervous or epileptic mother, or a drunken father, or from tuberculous parents, whose children are defective in their development and nutrition of nerve tissue.

A complete knowledge of family history, with proper effort exerted to remedy the defective equipment, in the way of good, fresh, pure air, sunshine, tranquil, unexcitable life, with judicious training and moral restraint will accomplish much, and we may be rewarded with a superb specimen of physical, mental and moral manhood in the end. It is no doubt true that in many cases the treatment of our little patient, as OLIVER WENDELL HOLMES would say, should have been begun a century before, yet with constant and increasing watchfulness, we may accomplish much, though we start late.

With other conditions favorable: teething, with angry, engorged gums, and the frequent accompaniment of disturbed digestion, may be a potent cause of convulsions. A free incision of the swollen gum may be all sufficient, but if the irritation be great the careful bathing of the gums with ice or a 5-per-cent. solution of muriate of cocaine will be desirable.

One of the few positions taken by my esteemed friend, DR. J. LEWIS SMITH, of New York, whom we all love and honor, which I cannot accept, is wherein he decries the importance of the teething process.

He who has is later life, in spite of a well-developed nervous system, suffered from the acute irritation of an erupting wisdom tooth, can best realize that cutting teeth is no child's play to the delicate and sensitive baby.

Gorging the stomach with improper food has been known to completely demoralize a healthy adult. The effect upon the sympathetic nervous system of a little one is pronounced; the means of relief obvious: emesis, enema (of a drachm of warm glycerin), calomel purge; aids to digestion. Careful selection and limitation of food. Infants should be guarded against constipation and to this end nothing surpasses the following:

℞ Tr. nucis vom., ℥ ss.
Tr. belladonna, gtt. xv.
Aloin, gr. ss.
Alcohol, ℥ j.
Elix. lactopeptin, ℥ j.
Glycerin, ℥ iii.
Syr. simpl., ℥ ss.

Sig.—Teaspoonful at bedtime or, if need be, twice daily.

No doubt the cases of convulsions referred to the anger or emotional excitement of the mother or wet nurse are due to indigestion occasioned by the change in the milk nursed.

Worms are charged with being a frequent cause of eclampsia, but the testimony of HENOCH is to the effect that he had never seen a case which could with certainty be traced to worms.

My own observation, while by no means as extensive, corresponds with this writer.

Anthelmintics should not be ignored, however.

High temperature occasioned by the initiatory stage of the eruptive fevers, pneumonia, pleurisy, enteritis, meningitis and malarial or typhoid fever, is a frequent cause of convulsions, but this can be promptly ascertained by the use of the thermometer, and after which the course to pursue is well defined. Not the traditional bath of mustard and hot water, but the cooling bath and possibly the wet pack. We should put out the fire, not feed it. In this connection I recall two cases, reference to one of which will be sufficient:

M. A., aged 3 years, Dec. 24, coasted with nurse entire afternoon, and the pleasure was rudely terminated by the child being terribly frightened by the sled being permitted to carry her under a bridge which was dark and forbidding. She was put to bed in the regular way, having eaten an unusually light supper, in a room adjoining the mother's, with light turned down. At nine o'clock mother heard child breathing stertorously, and discovered her in convulsions, and skin very hot, face red and flushed. The physician summoned put her into an intensely hot bath with mustard and renewed the water time and again, as the convulsions lasted over an hour and a half and then ceased, the attendant announcing to parents that she was all right as he had stopped the convulsions, not realizing that the muscular contractility was exhausted and hence the stoppage of spasms.

On entering I found that no history had been elicited, no temperature taken, and I soon discovered that the thermometer registered 109° Fahrenheit, and when I informed the doctor that in my judgment the child would die before morning, he would not believe it. The family were cruelly awakened from their false hopes and the child lived but a few hours.

I am free to say that in the majority of cases, I think the hot mustard bath an injury rather than a benefit. Every child in convulsions should be at once stripped and whatever else be done, the thermometer should be used, preferably in the rectum.

Having eliminated high temperature, indigestion, worms (?), teething, the possibility of irritation being caused by foreign bodies being introduced into the entrances of the various canals, should be remembered. The ear should be examined not only for foreign bodies, but also for possible interior inflammation. A recent history of scarlet fever may develop suppression of urine and uræmia as the trouble. Remembering that tubercular meningitis (according to high authorities) is a most *frequent* cause of infant mortality, it should not be lost sight of; indeed, I think meningeal tubercle a frequent cause of convulsions in ill-nourished children, and did time permit, I would cite several clinical illustrations from my case-book. I am firmly convinced that the post-mortem evidence would favor the idea that many more poorly fed babies die from tubercle in the brain than we imagine.

The relation between an elongated, narrow, adherent prepuce, with the consequent inflammatory disturbance dependent upon accumulated secretions, and reflex convulsions, should be recalled to mind, and if the conditions demand, circumcision should be promptly performed.

Among obscure causes of well-defined infantile convulsions which may be overlooked, there occurred under my observation the case of a two months' child which had been banefully affected by belladonna, carelessly applied in the shape of belladonna ointment to the breast of the mother by the nurse, without the knowledge of the physician.

As a very unusual cause of fatal eclampsia, I recall the bottle-fed infant of a morphine-eating mother, which I innocently but ignorantly permitted to die in convulsions occasioned by cerebral disturbance, which might have been relieved by the administration of the proper amount of the drug necessary to meet the demands of the morphine habit which it had inherited.

Undoubtedly the congestion occasioned by a malarial seizure is a frequent cause of convulsions, and in plethoric children we should not lose sight of the value of leeching over the temples and behind the ears.

I desire to emphasize the following points:

1st. We must not lose sight of the fact that a convulsion is only a symptom, and not a disease. We must promptly determine the cause, and then intelligently and energetically eliminate it.

2d. We can probably classify the majority of cases of infantile convulsions as being caused by ill-fed nerve centres (rachitics and victims of tuberculosis), reflex irritations and cerebro-spinal engorgements and congestions dependent upon the high temperatures incident to the poisons of malaria, the infectious diseases and narcotics.

2. As we can make a triple classification in the etiology, it follows that we should have a similar division in the matter of treatment, and succinctly stated, we may designate the latter as, (*a*) nutritive and constructive; (*b*) a removal of all irritation from the sympathetic system; (*c*) antiphlogistic, eliminative, cooling and sedative.

4. While calming the fears of the agonized parents whose child is taken with a spasm, by assurances that an infant rarely dies in this manner, and that causes the most insignificant sometimes occasion the disturbance, we should not fail to impress them with the fact that it is a serious matter, that the best possible way to treat the convulsive diathesis is a perfect hygienic regime, prevention by good food, proper clothing, fresh air and sunshine, plenty of sleep and avoidance of all excitement.

5. In discovering a child in an eclamptic paroxysm, no one article is more essential to a proper examination than a well tested thermometer (it being practically the doctor's sixth sense which enables him to go far toward making a diagnosis), and the only proper place for locating it in ascertaining the degree of fever is in the rectum, leaving it in situ not less than three minutes.

6. For the prompt quelling of the spasm, chloroform by inhalation is a most valuable remedy, but it should be used carefully and not too early, as it may serve as an agent to mask the true condition of the patient, the hiding of the danger signal kindly thrown out by Dame Nature.

7th. In the cooling-bath we have a prompt and potent means for quelling the riotous condition of the cerebro-spinal system. Not the sudden ice-cold bath; that borders on the brutal, but water in the beginning of about the temperature of the patient and gradually reduced to 70° or 60° Fahrenheit, and possibly lower if the indications call for it.

8th. In acetanilid I am sure we have a most valuable remedy for the relief and prevention of convulsions. Clinical experience for one year justifies the conclusion. The action of the drug is rapid, usually beginning to manifest itself within an hour, and not infrequently within twenty minutes; its full effect reached in four hours.

Pulse and respiration are slowed; arterial tension rises, diuresis and diaphoresis occur, pain is relieved and sleep usually ensues. No very great amount of depression follows if

given carefully, but an exanthematous rash now and then accompanies its administration.

In confirmation of my own experience of its value in the convulsive diseases, I note the fact that DR. H. N. MOYER, in the London Medical Recorder, of August 20, 1888, reports favorably on its use in epilepsy, five-grain doses three times daily.

N. W Cor. Grand Ave.. and Lindell Boulevard.

LACHRYMAL AFFECTIONS—CLINIC AT ST. MARY'S HOSPITAL.

BY EUGENE SMITH, M. D., DETROIT, MICH.*

GENTLEMEN:—The four or five cases operated on before you a short time ago, together with the several cases to be taken care of to-day, afford us a fine opportunity to consider the subject of lachrymal troubles, and reiteration of much of what I said to you at that time, will, I hope, but tend to emphasize certain particulars, relating to these rather troublesome affections.

The case as it presents itself to you, may be simply one of "watery eye"—epiphora. This epiphora or lachrymation is the one symptom common to all lachrymal diseases, yet it may depend simply upon displacement or obliteration of the puncta lachrymalis, may be caused by relaxation of the orbicularis muscle, or inflammatory action in the lid; it may depend upon obstruction of the canaliculi, or it may be caused by stricture of the nasal duct. By far the greater number of cases, however, are due to stricture, and when stricture has existed for some time, we usually see a small swelling at the inner angle of the eye, external to and just below the inner canthus. Pressing on this swelling with the finger if we see a viscid secretion exude from the puncta, we have a blennorrhœa of the sac. In some cases the pressure causes the secretion to escape into the nose. Not infrequently this secretion causes a conjunctivitis which, in some cases, is quite intractable, sometimes the sac becomes considerably distended, producing a slight deformity. This distention of the sac is called a mucocele. As long as the patient can by pressure remove this viscid secretion comparative comfort may exist, but if from a so-called "cold" or other cause, the exit becomes closed, inflammation of the sac—dacryo-cystitis—occurs and we have to deal with an abscess of the sac, the symptoms of which are very severe.

The eyelids and cheek become œdematous, the skin of a dusky-red color, accompanied with great pain and heat, and sometimes with rigors, pyrexia and vomiting. In fact, the picture is not unlike one of facial erysipelas, and I have seen not a few cases which had been treated as such.

Abscess of the sac never ends in resolution. Suppuration takes place, first in the sac, the wall of which it soon perforates, it then infiltrates and sets up inflammation of the surrounding cellular tissue, and terminates by perforation of the skin of the cheek about two lines below the inner canthus. If not properly treated a fistulous opening remains to annoy the patient.

In most cases blennorrhœa of the sac develops insidiously, and usually from nasal catarrh, though it may be idiopathic, and it may be caused by specific or scrofulous periostitis.

The indications for treatment of these affections must be based entirely upon the cause of the affection. If the epiphora be due to thickening of the palpebral conjunctiva causing a displacement of the punctum, try first the effect of treatment of the conjunctival difficulty, not forgetting, however, that many times the lachrymation is the cause of the conjunctivitis, and to cure the latter it is necessary to slit up the canaliculus, a procedure known as BOWMAN'S operation.

If the puncta seem to be in their normal position and you wish to find out if the duct is patent, you may pass a small hair-like probe through the canaliculus and duct, or, as I prefer to do, dilate the punctum of the lower lid, by means of a sharp conical probe, or a large pin, passing the point inwards a line or two, gently rotating the probe or pin between the thumb and finger; allow it to remain a few minutes, then withdraw it and insert the very fine nozzle of a lachrymal syringe and inject some pure water or a mild antiseptic lotion; if the duct is patent the injection will pass into the nose. If you conclude that it is advisable to slit up the lower canaliculus you may do it with a pair of fine scissors, a small grooved director and bistoury, or with what most operators prefer, a probe-pointed canaliculus knife. While the operation is a very simple one, it is just as easy to do it wrong as right. To do it properly, you had better stand behind your patient with his head resting against your manly bosom. Anesthetics are not necessary. Draw the lower lid downwards and outwards, slightly everting it with the thumb of one hand, while with the other hand the probe-pointed canaliculus knife is introduced vertically (remember, gentlemen, the anatomy of the part); when the point of the knife has entered a line or more drop the handle of the knife to the horizontal, thus, tilt the edge of the knife backward toward the conjunctiva so that the incision will be on a line continuous with the inner lip of the palpebral border at the junction of the skin and conjunctiva, push it towards the nose till the point of the knife

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impinges on the nasal wall, then bring it up boldly from the horizontal to the vertical position, still keeping the lid tense, thus cutting from heel to point of the knife the whole length of the canal. Once or twice a day, for several days, it may be necessary to open the wound with a probe to prevent closure of the canal by healing together of its edges. Mild antiseptic lotions may be dropped into the conjunctival sac twice a day for several days. This will generally suffice to bring about a cure.

In the case of blennorrhœa of the sac, this slitting of the canaliculus is but the first step, and must be followed with probing the nasal duct, and syringing out the sac with antiseptic or astringent lotions—a very good one is 10 to 20 grains of boracic acid to the ounce of water. For probing the nasal duct BOWMAN'S probes are used. They come in sets of six or eight, and are numbered from 1 to 8. They are made of silver. Conical probes, and probes with bulbous ends are also in use, but generally speaking, I think most oculists use BOWMAN'S, such as you see me use in these cases. I seldom use a larger than No. 6. In introducing a probe, bend it somewhat, that it may conform to the conformation of the patient's face: the more prominent the eye-brow, the greater the curve of the probe, never should a perfectly straight probe be passed.

Begin the introduction by passing the point of the probe horizontally along the floor of the canaliculus till the point touches the nasal wall, then raise it to the vertical position, push it downwards, turning the curve so that the point of the probe points towards the angle of the mouth of the corresponding side, then when you meet the obstruction—stricture—make steady, gentle pressure, just as you would do in a stricture of the urethra. After you have passed the stricture push the probe onwards till its point rests on the floor of the nose, and let it remain in situ at least half an hour. When you remove it syringe out the sac and duct. The probing and syringing should be done every day or two for several weeks. As the case improves, the intervals should be longer.

Many times your patient will become discouraged, and so will you, as most cases require months of treatment. When a tendency to closure of the duct continues in spite of frequent probing, a stylet, such as I here show you, may be inserted and worn for several weeks, removing and cleansing it and the duct daily.

The old method of inserting a stylet was through the external wall of the sac. An incision was made about two lines below the insertion of the tendo-oculi into the lachrymal sac, and the style was placed through this opening. For obvious reasons this operation is now obsolete. Now-a-days the stylet is so placed that its upper crook-like portion either lies in the canaliculus or hangs over the margin of the under lid. Stylets are made of silver or lead, and are shaped like a shepherd's crook..

When there is abscess of the sac, and it has not yet opened, you should give free exit to the pus. If possible, slitting up the lower canaliculus is the better way, but if the swelling prevents this, try to pass a knife into the sac through the conjunctival surface of the lid, for cutting through the skin externally is inelegant, and, though effective, it may be followed by a fistula, and will leave a scar. After the swelling subsides, you can slit up the canaliculus and proceed with the case as with a case of blenorrhœa of the sac. If the abscess has opened itself through the cheek, leaving an ulcerated surface, you will find it necessary to stimulate healing of the ulcer with nitrate of silver or sulphate of copper.

In cases of very tight stricture, the stricture may be incised with a triangular knife introduced the same way as the probe, forcing it down in the duct two or three times, turning the edge in different directions, after which probes or the stylet may be used. This is known as Stilling's operation, and in many cases expedites the cure.

Occasionally an oculist is found who prefers to slit the upper canaliculus and then proceed as through the lower. If from some reason you should prefer the upper passage, you must use a strongly-curved knife, known as Weber's canaliculus knife, like this one.

In this case, the German on whom I operated before you five weeks ago, the left eye is cured by the probing and syringing, but the right remains rebellious, and I shall put in the stylet to be worn for several days, keeping up continuous dilatation. As you observe, I introduce it exactly as the probe should be put in, first horizontally, then raised to the vertical and gently pushed downwards till it rests on the nasal floor. This should be removed daily.

As I syringe the sac in this lady, you observe that when the head is tilted backwards the solution passes into the throat and gags her, but when she leans forward you see the medicine stream from the nose. This teaches you that the duct is open.

COMPARATIVE ACTIVITY OF PEPSINS.

BY F. A. THOMPSON, PH. C., DETROIT, MICH.

Probably, during the past few years, no subject has received more attention from prominent chemists than pepsin, which carries force as an argument that it is one of the leading drugs of our materia. In presenting this subject it would seem almost certain that it must be more or less a resume of what has already

been written, but it is hoped that the reader, especially the physician, may find something of interest and worthy of some consideration.

The present era, is rapidly conceding the importance of having galenical preparations of a certain definite strength, based on the amount of active principle, *e.g.*, atropine in belladonna leaves, and now let us ask, is it not just as essential that we should know the activity of the pepsins in use, based on a similar standard?

The greatest difficulty to overcome, in adopting a *standard* for pepsins, is the selection of a test that will give impartial and more uniform results. It is a well known fact to those familiar with the examining of pepsins, that the various official tests, as well as those prescribed for some special brands, give entirely unlike conditions and consequently discordant dissolving powers for the same sample of pepsin.

This is certainly an embarrassing fact to face the practicing physician who is always anxious to prescribe the best medicines attainable. What we sadly need, is a test or a rule that can be applied to any test, which will give approximately the comparative dissolving powers, the conditions being equal.

Many chemists have experimented for some time past, with a view of discovering a practical and reliable method of determining quantitatively the amount of peptone formed, and it is to be regretted that none satisfactory has been found, as it is without doubt the true constituent by which to judge the value of a pepsin. It seems highly probable then, that we must be content for the present with the comparative dissolving powers for a guide, and to the writer this does not mean the usual method of testing, when the same amounts of albumen, acid, water, and pepsin are used; but when modified or subjected to the following rule:* "Take sufficient of each pepsin to completely dissolve the same amounts of albumen under exactly like conditions, or sufficient of each to dissolve the same per cent. of the total albumen taken."

The official as well as other tests are satisfactory to determine whether a brand is above or below its respective requirement or claim, but as we now have products far above the requirements of the official standards, especially the pharmacopœia test for saccharated, it would seem desirable that we have some means of determining the true value of these superior products, and to this end I would earnestly request that the reader try the application of the above rule, and compare the results with the usual way of testing, other conditions being equal.

I hold that the above rule is applicable to any test, whether official or not, the only requirements necessary are, that the conditions and treatment during the time of digestion shall be the same for each container. I do not wish to be understood that the application of the above rule to two unlike tests will give the same dissolving power, even for the same sample, but, that it will give the same *relative* value of two or more products. As, for example, if two are capable of just completely dissolving 2,000 and 1,200 grains respectively, by a six-hour test, they also will be found capable of completely dissolving about 165 and 100 grains respectively by a one-hour test, other conditions being the same.

The reasons for using various amounts of pepsins, are that we can't accept that there is as much active ferment (or active principle) in one grain of one product as there is in the same quantity of another; second, that pepsins act entirely superficially, so the more surface of albumen exposed the more the same amount dissolves; third, that the ferment is not destroyed by dissolving albumen, and consequently dissolves more rapidly in the first than in the last stage of the test. After carefully considering these points, it certainly must seem obvious why different amounts of various pepsins should be used to dissolve exactly like amounts of albumen, if we wish to give each one an impartial basis to establish its peptic value.

In my experience in pepsin testing, I have never found it practical or satisfactory, and often impossible, to try to estimate the amount of undissolved albumen, by filtering, drying and weighing the residue. When a solution, containing partially dissolved particles of albumen is thrown upon finely scraped asbestos, in a Goosch filter, attached to a strong filtering pump, it will immediately become clogged by these particles, and further filtration rendered impossible, at least so slow as to be practically useless. For this reason I have never been able to use the test given by the new National Formulary. I have, however, estimated the amount of undissolved egg-albumen, by immersing the container or tube in cold water (40° to 50° F.) and removing the supernatant fluid by decantation, but as this requires a day or two to complete, I considered it impracticable; therefore, I have always taken a complete solution of the albumen as a basis or standard requirement. It is also desirable in pepsin examinations to use a standard for control, as I have sometimes experienced mysterious results, which I could not account for, and might have accepted the results as satisfactory, if I had omitted my standard, which acts as a check. I might add here that I am disposed to believe that the nearest pure pepsins, I have handled deteriorate after some time, and, therefore, one must closely watch their standard.

* From paper on "Comparative Pepsin Testing," by the writer, read before the A. P. A., September, 1888

For convenience of computing, I selected from the many samples I have examined, the one having the highest digestive power (sample number 1 in table) and called it a 100 per cent. pepsin, which does not mean that is absolute, as such a product is unknown. Then by repeated assays, I ascertained how much of the other samples it required to completely dissolve the same amount albumen as the standard, under the same conditions, and from this calculated the per cent. of active ferment.

In conjunction with these notes I have decided to publish in tabular form the comparative activity of the leading brands found in the market, the results being based on the foregoing.

venience of the experimenter, but without changing the conditions of test.

Preliminary Test: Boil the eggs 15 minutes, cool, and after removing all the yolk and superficial moisture, press the coagulated albumen through a No. 30 brass sieve by means of a stiff spatula. After thoroughly mixing the finely divided albumen, 10 grams are carefully weighed out and transferred to a medium sized mortar; then 95 c. c. of distilled water previously warmed to about 100° F., are measured out and small portions added to the albumen in the mortar and the mixture carefully triturated to ensure uniform division of the particles and finally transferred by means of the remaining water to a large test tube

SUMMARY OF COMPARATIVE PEPSIN EXAMINATIONS.

NUMBER.	PHYSICAL PROPERTIES.	CLAIMS FOR ACTIVITY ON THE LABELS.	ACTUAL (COMPARATIVE) DISSOLVING POWER OF ONE GRAIN.	COMPARATIVE VALUE REPRESENTED IN PER CENT.
1.	Semi-transparent, permanent scales, readily soluble and free from objectionable odor or taste.	Will completely dissolve 2,000 times its weight of albumen in 6 hours.	2000 grains.	100 per cent.
2.	Opaque, amber scales, putrefactive odor and comparatively insoluble.	Will dissolve 1,000 grains in 4 hours	1200 "	60 "
3.	Yellowish scales, strong putrefactive odor and exceedingly hygroscopic.	Will dissolve 700 to 1,000 grains in a few hours.	1000 "	50 "
4.	A permanent sparingly insoluble, gray powder, and quite odorless and almost tasteless	Will dissolve 1,000 to 1,450 grains in 4 to 6 hours.	750 "	37.5 "
5.	A light colored, permanent powder, largely soluble.	Unequaled in digestive power.	350 "	17.5 "
6.	Soluble amber colored scales, nearly odorless, but very hygroscopic.	A potent and speedy solvent of albumen.	250 "	12.5 "
7.	Permanent, readily soluble and almost colorless scales.		200 "	10 "
8.	Permanent, grayish and soluble powder; odor suggestive of lactated compounds.	Will dissolve 250 to 450 grains raw beef in 6 hours.	200 "	10 "
9.	A soluble grayish powder; odor suggestive of lactated compounds.	None on activity.	200 "	10 "
10.	Almost transparent, soluble scales quite free from odor, and permanent.	Will dissolve 535 to 600 parts of albumen speedily.	50 "	2.5 "

This summary represents six scale and four powdered products arranged in accordance with their dissolving powers.

As previously stated, I have also used a standard on the basis of 100 per cent which was a soluble pepsin in large scales and possessing a high digestive power. I would beg to add here in justice to the manufacturers of this highly potent product, that it was made by PARKE, DAVIS & CO. and known under the name of *pepsinum purum in lamellis*.

In reviewing the table one finds a great difference in activity and that some do what is claimed, while others come far from it, when subjected to a comparative test.

The various strengths stated are based on repeated assays, conducted in a most careful and satisfactory manner by the use of an improved pepsin tester* and the following general rule which can be be modified to suit the con-

(capacity about 130 c. c.) having a flat bottom. Add 5 c. c. of 6 per cent. hydrochloric acid (s. g. 1.0296 at 59 F.) and place the tube in the water bath and when the temperature reaches 104° F. (40° C.) various amounts of the pepsin under examination are added and the mixture subjected to a constant temperature and fairly uniform shaking for six hours. When examining soluble pepsins I have found it more convenient to make a solution of definite strength substracting the amount of pepsin solution taken from the amount of water added to each tube. After digesting the required time, the tubes are removed, filled with ice cold distilled water, immersed in very cold running water, and after one half hour they are taken out and placed in a suitable rack in order of their digestive power, *i. e.*, from the lowest to the highest proportions.

The tube found next in order to the last one free from albumen, is accepted as near the true dissolving power of the sample

* Druggists' Bulletin, May 1888.

After making the preliminary test, a second or more accurate one must be made, *i. e.*, under the same conditions and treatment, but using amounts of pepsin, nearer the proportion found in the preliminary test, reading the results in a similar manner, which will indicate the amount of albumen the sample is capable of completely dissolving.

Dec. 1888.

PASTEUR AND HYDROPHOBIA.

BY ALONZO BRYAN, M. D., DETROIT, MICH.

It may now be safely conceded that M. PASTEUR is assured of his renown upon the subject of hydrophobia. He has passed through the fire of conflict—a conflict originating in honest adverse criticism, in jealousy, envy, malice and self-interest—and now abides at last in the secure place. His haters have bitten themselves, and his detractors are vanishing in masses. The bitterness of his struggle has been untold and extraordinary.

The method of PASTEUR in inoculating against hydrophobia has met with as much violent opposition as did the one of the immortal DR JENNER, in vaccinating against small-pox. Both great schemes met with a frenzy of antagonism and incredulity. When DR. JENNER, an obscure physician from the country, attempted to establish the benefit of his tremendous discovery in London, he was accused, by the most eminent of his profession, of attempting to "bestialize" the human race by introducing animal matter from the lower creatures into the systems of men. The clergy denounced vaccination as being "diabolical." All sorts of adverse stories were propagated, and the most monstrous reports respecting its effects were disseminated and believed. So with PASTEUR. Eminent men throughout Europe (and to some extent in America) vied with one another to throw odium upon the great and heroic attempt which he made to establish a principle whereby the terrific malady, hydrophobia, could be prevented.

On October 26, 1885, PASTEUR reported to the French Academy of Sciences that he had successfully inoculated a young man, named MEISTER, with the antirabietic virus. MEISTER was the first human being submitted to the momentous, and then, awful test. Preliminary to this operation, vast numbers of experiments had been made upon animals by PASTEUR and his immediate collaborators. By these experiments they assured themselves, and re-assured themselves, of the tremendous value of the discovery that was to be set against the most horrible disease known to man. With time and patience PASTEUR had worked out his problem. Young MEISTER survived, a monument to the principle which had been so gloriously avowed. Soon followed in the demonstration, another person, named JUPELLE. The venture was successful. Then immediately the wounded, in fear of hydrophobia, came in great numbers to PASTEUR and his assistants, and it became necessary to organize a service to aid in the treatment of the patients and to keep an accurate record of the work. Of this work, the secular press teemed with laudations, while medical men assailed. Many medical men, however, were patient and considerate, and some were enthusiastic advocates of the method which had been put in operation by PASTEUR. Of these latter were CHARCOT, VULPIAN, BROUARDEL, VERNEUIL, CHAUVEAU and VILLEMIN, all extremely eminent and illustrious in medical science. These men, with PASTEUR, were like a confederation of lions. They had all been confident with the experiments upon animals, and they were now confident in the experiments upon man. In the line of battle, PASTEUR was the center, the other named great spirits were the wings. The spectacle was sublime. France had placed herself in advance of the world. She sustained herself, and the men named were her exemplars—PASTEUR the chief.

However, the condemnation of PASTEUR'S method of inoculation for hydrophobia was not so unanimous after it was fully announced as was the assailment of the method of JENNER against small-pox, when it was first propounded. In the different learned societies of Europe the Pasteurians and the anti-Pasteurians were about equally divided. The opponents were fierce and, it is to be feared, in some instances unscrupulous in their statements. In some quarters it was boldly alleged that the inoculation for rabies would give people hydrophobia instead of curing it, and that there were many victims of the fatal process. It was asserted that the Pasteur laboratory hid the bodies of those it had murdered, and that the dead were legion. In the meantime (in 1886), under the stress of labor and emotion, PASTEUR'S health failed him, and as a consequence, the work of the laboratory languished. In the same year an attempt was made to establish a monthly publication that would continuously give to the world the results of PASTEUR'S efforts. This enterprise was a failure until the ensuing year. It made its appearance in January, 1887.

Also, in the beginning of 1887, the Paris Academy of Medicine took up the subject for discussion, and at the same time the learned societies at Naples, Vienna and St. Petersburg entered also into the discussion. It was then that PASTEUR had fair fighting opportunity. In the meantime a British official commission had been considering the question. The commission was composed of the most celebrated scientific men of England; and they made a report in favor of the Pasteur method. They said: "M. PASTEUR has discovered a method

preventive of hydrophobia comparable to the one of vaccination against small-pox." This decision was the result of a year's deliberation. Multitudes of other eminent acknowledgments followed.

Now, in the year 1888, it may be conceded that the discussion is concluded. PASTEUR has triumphed; his renown is established; the world is grateful.

In the present year, and lately, the consummation of PASTEUR'S triumph was seen. On November 14th, the inauguration of the "Pasteur Institute" took place, amid circumstances the most imposing, and which were destined to be memorable. Over the ceremonies the President of the French Republic presided. He was assisted by the Presidents of the Senate and House of Representatives, and by the different heads of the departments of State; and also by members of the Academy of Sciences and of Medicine, etc. Every accessory of grandeur and honor was brought to bear. For the occasion, memorials were sent by the Emperor of Brazil, Mme. Boucicaut, Mme. Furtado-Heine, Counte de Lauberpin, and Baron Alphonse de Rothschild. No scientific occasion has been before so extraordinary.

PASTEUR is now more than three score years of age. He has passed the line in life after which men cease to take on new ideas. But, the immortality he has achieved in combatting infectious disease (including anthrax, hydrophobia, and others) is certainly sufficient for one man. For forty years he has striven on the outposts of science. His *confréres* thought he was engaged in dreams. Those dreams have been realized. They have been shown to be part of the fabric of nature's laws.

It is not the prevention of hydrophobia alone that renders him immortal. The principle involved in his method applies to the treatment of other almost equally hideous diseases. And, it is to carry out this principle that the Pasteur Institute is established. PASTEUR'S idea is one of the revolutions in medicine. The *hydrophobia* department of his institute is only one of a number, and it monopolizes the world's attention to the exclusion of the other departments because it is so conspicuous.

And, the enormous prestige of the Institute at Paris is only apparent when we consider that it is the parent of numerous other institutes of its class, already lately established in almost every civilized country. Of these antirabietic institutions, there are now more than twenty. There are seven in Russia, five in Italy, one in Vienna, one in Barcelona, one in Bucharest, one in Rio de Jeneiro, one in Havana, one in Buenos Ayres, and in Chicago and in Maltrn two new laboratories are being organized. The Pasteur Institute of Paris is in continuous relation with the institutes in other parts of the world. From these laboratories, and from others that will be established, marvelous good results may be expected; indeed, they are already obtained.

TREATMENT IN CASES OF BRICK-DUST DEPOSIT.*

BY ARTHUR JUKES JOHNSON, M. B., M. R. C. S., ENG., F. R. M. S., F. O. S.

In selecting this as the subject on which to read you a paper, I have not done so because I think that any of my hearers are unfamiliar with it in general, but rather, because from its mere familiarity, its value as an indication of approaching disease may be overlooked, at a time when by a little care and attention, a serious condition may be avoided.

An error in diet, too much beer, a glass, or two too much of port or champagne, may be the cause of a pinkish deposit occurring in the urine. This deposit is composed of uric acid in some form, generally as urate of soda, potash or lime. It can be dissolved by heat, and may appear in the urine of any one, without their having any hereditary tendency. It is not, however, of these cases that I intend to speak, but of those in which this deposit is persistent, where, without any error in diet—and I speak now not only of such error as consists in the too free use of stimulants—but without any error whatever, a patient habitually passes this kind of urine, and who after a time notices that this deposit is augmented by crystals of uric acid. When this occurs early in life, say before forty, we may be pretty certain that there is here a strong tendency to the production of uric acid, either inherited or acquired, and that sooner or later it will accumulate, and we will have to treat one of two things, viz., gout or calculus. For these two diseases are intimately connected. They may, and in fact frequently do, exist in the same person. As the symptoms of gout become less prominent, those of what is commonly called gravel make themselves apparent. Both diseases are very generally hereditary, and seem to be interchangeable. A patient with gravel will frequently be found to give a history of gout in one parent, and his children again may have gout, though he never had. The chalk stones so commonly seen in the knuckles of old people, the presence of which so distorts their fingers, are composed of the same material as the brick-dust deposit, that is, uric acid, now in the form of urate of soda. Whether, then, a chalk stone forms in the knuckle, or a uric acid calculus forms in the bladder, we must look upon them as an exhibition of the same primary condition, and the source of both is to be

*Read at a meeting of the Toronto Medical Society. The Canadian Practitioner.

sought for in the same process. But first let me say a few words with regard to stone in the bladder.

It has been found convenient to describe all forms of stone occurring in the bladder, as of either local or constitutional origin. By local is meant, stone which occurs from disease of the bladder itself, and in which constitutional conditions do not affect its formation. Of this variety I shall say very little here, except that when a calculus of this kind has once formed, an operation of some form is required for its removal. The constitutional calculus is of quite a different character, and is generally avoidable. All constitutional calculi have a base, the elements of which are separated from the blood. This base is most frequently uric acid, sometimes oxalate of lime, or even in a few rare cases phosphatic stone would appear also to have this form of origin. A patient who habitually passes brick-dust in the urine, next notices, as I have already said, the bright crystals of uric acid. After a time sand is passed, the particles of which, as they grow larger, appear, as their common name expresses it, like gravel. As time goes on one or a number of these grains remain in the kidney or bladder, and grow larger by constant deposit on their surface from the urine that passes constantly over them. Thus arises a stone, the composition of which will be found to be this same uric acid, combined with one of the alkaline bases that I have mentioned above. Fortunately these cases generally consult a medical man before this latest stage is reached. They come complaining of "kidney disease," decidedly a vague term, but one which to their idea is undoubtedly evidenced by the appearance of "gravel" in the urine. I have noticed also that in many cases the disease from which they suppose they suffer has some very remarkable symptoms, which, when we analyze, we find agree with those given in some of the wonderful advertisements we see in our daily papers, particularly one that begins in large letters, Are you Tired? Have you a Pain in your Back? etc. The difficulty does not exist so much in learning what symptoms they think they have, as in finding any condition of the human body the symptoms of which they have not. And all these symptoms are set down as those of that much-dreaded "kidney disease" which must exist because they can see the brick-dust deposit in their urine.

Almost or quite convinced that they really have some disease of the kidney, these people fall an easy prey to unscrupulous quacks, who confirm their idea of their disease. Whereas, as a matter of fact, this brick-dust deposit, so far from betokening disease of the kidney, is an evidence to us that the kidneys are doing more than their share of work, instead of less. And yet the treatment generally laid down in the text-books almost forces one to the conclusion that the kidney has, through some faulty action of its own, something to do with the formation of this deposit; and so we are told to give alkalies when uric acid is present, and acids when the urine is alkaline; that is, to give liquor potassæ, bicarbonate and citrate of potash, Vichy water, phosphate of soda and ammonia (as having the power of keeping uric acid in solution in the urine), benzoic acid, benzoate of lithia, etc.

Now this treatment by no means removes the disease; it merely gets rid of the deposit by producing a chemical change. It does not remedy the pathological condition; it only deceives the patient by covering up his most appreciable symptom.

Looking at the pathology of gouty and uric acid cases, I find GARROD says, in speaking of gout: "This disease involves a peculiar morbid condition of the blood, namely, an abnormal accumulation of uric acid." SIR HENRY THOMPSON says this condition is the result of "a defective assimilation on the part of the organs of the primæ viæ." We find that in these cases we have a train of symptoms which when taken together constitute what is called "Torpid Liver." The symptoms consist of an almost constant deficient excreting function of the bowels, often accompanied with some symptoms of indigestion, a condition which it is customary with many to refer to a form of congestion of the liver. Whatever the exact condition is, certain it is that the liver exerts a very important action on the products of digestion. When this organ, alone or together with certain other glands of the digestive apparatus, is over-worked, or over-loaded, the kidney makes an attempt to assist in the elimination of certain materials which are to be got rid of, and the consequence is that the urine contains a larger amount of some of its solid constituents than it should. The uric acid passed in this way may not be perceptible at first, as it is to a certain extent soluble in hot water, but as the water cools it will be thrown down, as it is almost insoluble in cold water. If, however, it is in great excess, it will pass even in hot urine as fine bright crystals. Now the urine that contains these, contains them when it is in the kidney, as well as when it is in the bladder. Hence, we have stone in the kidney, or a stone may begin there and pass to the bladder, before it is large enough to be felt in its passage down the ureter, and increase after it reaches the bladder. It will be seen, then, that the formation of uric acid calculus in no way depends upon a diseased condition of the kidneys, nor should the treatment of such cases be directed to the stimulation of these organs. They are attempting the work of another organ, and the strain upon them should be removed by inducing this other organ to perform

its own functions. However vague our knowledge may be as to the action of certain drugs on the liver, or indeed with regard to the exact mode by which the liver gives off, or does not give off bile, practically we know that these cases are benefited by small doses of mercury, and more or less by all those drugs which are commonly used as substitutes for it, such as taraxacum, nitric acid, etc.

But of all the remedies used for this purpose, the sulphate of soda seems to be the most efficacious, particularly when used in the form of a natural mineral water, a form in which a comparatively small quantity of this salt will be found to act much more freely than a very much larger dose of the crystal. It is very remarkable, but it is nevertheless a fact, that this salt in an artificially prepared form is of little or no value, whether in the form of an artificially prepared mineral water, or as a crystal. More than this—if a natural mineral water, such as Friedrichshalle, be evaporated, the resulting salt will not have the same effect that it had when in its natural solution. Therefore, for our purpose the artificially prepared waters, though they may be what is called elegant preparations, fail in the essential qualities that we want.

The most valuable water of the saline group is the Hunyadi Janos, or Hungarian water, which contains about 2½ drachms each of sulphate of magnesia to an English pint. Next, and nearly equal to it in efficacy, comes Pullna, though it has the objection that it sometimes purges too freely, often gripes, and is very nauseous. Then we have Friedrichshalle, a very reliable water, containing something less than one drachm of sulphate of soda, and about ¾ of a drachm of sulphate of magnesia, to the pint. Now the dose of sulphate of soda given in the British Pharmacopœia is from two drachms to one ounce, and that of sulphate of magnesia from one drachm to four drachms. But in the best of these mineral waters there is only about 2½ drachms (a very moderate dose) of each of these salts to the pint of water, and yet you would not think of ordering a pint for a dose, for about half a drachm of sulphate of soda, with the same quantity of sulphate of magnesia, in their natural combination as they come from the spring, will suffice as an agreeable aperient for most people. This action cannot be obtained from this quantity of these salts in any other form; not even if the salt which is obtained by evaporating the mineral water in a warm-water bath, so as to avoid decomposition of the salt, or even less of the water of crystallization, be used. There is a peculiarity in the proper administration of these mineral waters which is worthy of note, the ignorance of which has led many to condemn them as useless. It is this: many of these waters in their natural condition, as they are obtained at the springs, are too hot to drink, and have to be allowed to cool slightly. They are all drank more or less hot, and it will be found that in using them as we get them, they must be warmed before they are taken. The best way is to put a dose into a large tumbler, then add sufficient boiling water to make the whole so hot that it can be drunk with comfort. This should be done an hour before breakfast, on rising in the morning, or it may be taken at intervals while dressing. The hot tea or coffee taken at breakfast seems to hasten the action of the water, and as a consequence one copious bilious motion will be obtained shortly after breakfast.

Now let us consider for a few minutes the alkaline waters most generally recommended in gout and gravel. They are Vichy and Vals; Vichy has 3 grains of sulphate of soda, and 47 grains of carbonate of soda to the pint. Vals contains no sulphate of soda, but about 65 grains of carbonate of soda to the same quantity of fluid. It is very easily seen how these waters act. By their alkalinity they simply dissolve the urie acid, and hold it in such a form that it cannot be seen; they obscure—that is the most appreciative symptom—but they do not cure the disease. Friedrichshalle, Hunyadi, and even Carlsbad, on the other hand, act in a very different way. They improve the activity of all the functions of digestion, and cause to be eliminated by the liver the waste that has formerly been thrown out as uric acid. In beginning this treatment, I think it advisable to give about four grains of blue-pill at bed-time the first night, after which the daily use of the water should be continued for six or eight weeks. It will be found that the dose of water will have to be reduced in a few days, as a smaller dose is then sufficient to produce the desired effect.

One word in conclusion as to diet. Although it used formerly to be thought advisable to stop nitrogenous elements of diet when uric acid was present in the urine, diminution of the deposit seems more certainly to result from an almost opposite course. The chief aliments that should be avoided are alcohol, sugars, and fatty matters. With regard to alcohol, if it is found necessary to allow any, a Rhine wine or a sound Bordeaux, will be found the best. Champagne should of course be forbidden, as it is generally an impure wine, and if sweet contains that most objectionable stuff known to wine makers as "Liqueur"; sherry, port and strong beer are most unsuitable Occasionally and under exceptionable circumtances, in cases of weak digestion, a little good whisky and water seems to be the least objectionable. Undoubtedly, however, the best plan for a patient who suffers with the condition I have described is, to give up the habit of taking stimulants altogether, for, as SIR HENRY

THOMPSON says: "It is not only not essential to the health of most persons, but is absolutely prejudicial to the most—but especially to the 'torpid liver' it is deleterious." Forbid sugar in every form and wherever found, and as far as possible all fatty matters, cooked or in combination, as in pastry, butter, cream, etc. By this means the overloaded liver will not be quite so overworked as before, the vicarious work of the kidney will be lessened, and it will be found that with this treatment and diet carefully carried out, uric acid will disappear more readily and more certainly, and with a more hopeful outlook for our patient, than by any other means.

Correspondence.

COMPENSATION FOR MEDICAL SERVICES.

In the issue of this journal, of Dec. 10, 1888, under the above heading, is an editorial which should be endorsed, and the principles therein advocated, practiced by all physicians. It is high time that a concentrated effort to protect our financial interests by adopting and maintaining a universal business method, should be made.

In the hope of inciting greater interest and activity in bringing about a healthy change, I offer a few thoughts on the unpleasant conditions existing, and suggest a method for their removal for consideration.

In doing this I may be pardoned for mentioning personal experience and observation, since my own corresponds with that of medical friends in nearly all parts of the country.

Beginning practice with a conscientious desire to do as I would be done by, with my neighboring practitioners, I took particular pains to make their acquaintance, and learn the prices by which they were governed in making charges for their services, that I might be governed by them in conducting my own business. I was surprised at the lack of uniformity and business-like methods in practice, and which indicated that the style was simply of the go-as-you-please order.

A printed scale of prices issued by, and supposed to govern, the district medical society, handed me by a member, seemed likely to be a reliable guide, but the latitude between the maximum and minimum prices named was so great that it was scarcely more helpful to me than the information before received, and was found particularly disappointing when, later, I learned that members of the society habitually charged less, even, than the minimum prices given.

I need not add to this further than to say that the conclusion was reached that the medical profession neither recognized nor practiced a general business system, and experience has taught me that it is the lack of system that is leading to complications and difficulties which will, if not remedied, soon make it impossible to secure a legitimate profit from our business.

I believe the remedy for this unfortunate condition is to be secured by the early adoption of a uniform fee-bill generally, which will provide a reasonable, legitimate profit, and conform to the wishes of the majority of the reputable physicians.

To get an expression from members of the profession I suggest a method which, though it may not be the best, seems to me practical. Let members of medical societies, after consulting not only with other members, but with all practitioners with whom they come in contact, bring the question before their society, adopt a minimum fee-bill which will conform to the wishes of the whole as nearly as is possible, and which they will adopt and conform to; have each member, and any outside whom they can enlist in the work, solicit every practitioner to subscribe to it. Any intelligent man would surely recognize the benefits that must accrue from such organized effort and would, likely, more fully realize the value of aiding to bring about, and faithfully adhere to, the business principles advocated for his interest and protection.

I suggest a minimum fee-bill particularly, because it is not the maximum fees which many physicians are in position to command that have a detrimental effect upon our business generally. It is, rather, the cutting under of prices which afford a living and legitimate profit to us, that is so disastrous in effect.

I have observed that the young practitioners are especially apt to undervalue their services, and cut under the established rates of their more experienced neighbor—presumably with the mistaken idea that is necessary for them to do so in order to procure business.

On the other hand, too many of the older physicians, who are more thoroughly established, conduct their affairs in such a haphazard way that their more methodical neighbors find it very difficult to carry on their business in a satisfactory manner, and suffer many embarrassments, and often loss, in consequence.

It was my lot to be cast into a field which older physicians had occupied and controlled for many years, and who, if they were governed by any fee bill at all, rarely asked for a settlement of account, or struck for pay, till their circumstances made it absolutely necessary.

I note that one of these hard-worked men, on contemplating a vacation and journey to recuperate his failing health not long since, advertised that he had not had a general settlement with his patrons for over eight years, and then *demanded*—and astonished them, no doubt—*prompt settlement*. Good men are they,

but it is quite noticeable that many of them are suffering from financial embarrassment. They have worked hard enough and earned a competency, and a lack of business method in looking after their financial interests only has kept them from securing it, and left them in need. The young man, and all now in practice, should profit by the sample of such, and at once begin to do what they have the power to do, by correcting faulty business methods so long the bane of our profession, and which never more seriously threateued our financial interests than at this time. "A long pull, a strong pull, and a pull altogether," will right the existing wrongs. Let us begin with renewed energy and a determination to succeed finaucially as well as otherwise.

J. D. Ely, M. D.

Medina, Mich.

PREVENTION OF CONCEPTION.

The general diffusion of a knowledge of how to innocently prevent conception when undesired, would, it appears to me, result in good to mankind. The crime of abortion which now numbers its victims annually by the thousands, would be very much lessened, and in the not distant future perhaps cease altogether. All abortions which are designedly caused are criminal, except in cases where there is a deformity which would endanger the life of the mother in giving birth to a mature fœtus.

No wife, however perfect her health may be, can fully recover from the effects of gestation, and nursing a child, in less than four or five years. And if she has to go through the ordeal of maternity again before such recovery, it is not only a wrong to her, but also to the future man or woman she is bearing, for she is unable to transmit to her offspring the vigorous physical and mental constitution that a more perfect recovery would have enabled her to do; and the husband that causes his wife to bear children oftener than every five years, may indeed love her, but it is hardly with a platonic love, whatever else it may be.

An unwelcome child should never be born, for the impression made upon the mind of the mother by an undesired conception and gestation constantly reflected upon the fetus cannot fail, in very many instances, to develop a very unfortunate mental constitution in it, for there is such a thing as cause and effect. Then again, the transmission of scrofula, syphilis, insanity and other hereditary diseases might be lessened by a prevention of conception. Every physician of experience has often been consulted by persons who knew their systems to be organically defective, and were fearful of transmitting these defects to their offspring if they had any. Of course the necessary advice is imparted and about one-half are obedient, so far as my observation has noted results.

Now the careful prevention of the sperm when undesired, from coming in contact with the ova violates no physiological law, for both the sperm and ova are normally wasted all through mature life. That it is immoral to bring scrofulous, syphilitic and insane children into the world, needs no argument, for it is self-evident. And it is also very immoral for a husband to compel a wife to have as many children as she can have during her mature life, in very many instances wholly regardless of what may become of them after they are here. In excessive child-bearing the fault is invariably with the husband. The wife is his helpless victim. If he does not exercise the necessary precaution she has to suffer the consequences.

J. Hoke, M. D.,

Cordova, Ills.

DIGITALIS IN REMITTENT FEVER.

The peculiar climatic conditions of this country seem to favor the various remittent forms of fever, more especially the well known and justly dreaded "Typho-Malarial."

An active practice of nine years has given me ample opportunity to test most of the prevalent modes of treatment of such affections, all of which seem more or less unsatisfactory; so much so, indeed, that a majority of our best physicians have settled quietly down to the expectant plan. Two years ago I began to notice that when, from cardiac weakness or other causes, I had occasion to use digitalis with any regularity the unfavorable symptoms decreased steadily after thirty-six hours and the fever terminated in a few days. Continuing my investigations I discovered that the fluctuations of the febrile movement were greatly lessened under the influence of this drug, and have seldom noticed a greater variation than two degrees in twenty-four hours. I became so thoroughly convinced of the utility of the drug that during the year 1888 I resorted to the foxglove on the first appearance of typhoid symptoms, with the uniform result of entire subsidence of fever in five days from commencing the digitalis. I treated sixty-nine cases of true typhoid and typho-malarial cases without the loss of a single patient, and, as a rule, the fever subsided on the fifth day of treatment with digitalis.

G. A. Trott, M. D.

Buckholts, Tex

TREATMENT OF SMALL-POX.

Having spent some time in the small-pox hospitals in Shanghai and Hong Kong, China, I venture to offer a few suggestions as to its treatment, derived from the experience of mea

who have had many years' experience in the treatment of that dreaded disease.

When the disease first manifests itself, the patient is given 3-grain doses of quinine three times daily, throughout the disease. When the eruption is thoroughly established, an ointment composed of equal parts of citrine ointment and vaseline is applied over the whole body every few hours, and continued throughout, not allowing the skin to become dry and harsh. This, of course, requires the services of a careful nurse. Pitting is less frequent and severe with this treatment than with any other. Pyrexia controlled with aconite, and any symptoms presenting themselves treated accordingly.

The injection of the pustules is looked down on as barbarous, and has been found to cause more pitting than when the pustules are let alone.

The diet consists of light food and fruit. Stimulants are given only when peremptorily called for by shock or great prostration.

This treatment, when properly carried out, has been found to give the best results of any treatment yet known.

JOHN J. SELLWOOD, M. D.

EAST PORTLAND, OREGON.

PICHI IN CYSTITIS.

I have used pichi in several cases of chronic catarrh of the bladder with muco-purulent discharges, and find it beneficial to this extent: The discharge was made more fluid and consequently easier to pass; the ejaculatory muscles seemed to be toned up after having in some cases, been weakened almost to paralysis, particularly in an old man of seventy-five years, who had a catarrh of the bladder and enlarged prostate gland of over ten years' duration. I was led to the use of the remedy by the claim of its introducer that it was a "Lithontriptic" and that it acted upon the mucin by which the siliceous matter in stone was held together. I reasoned that if it did not act to this extent, it might to the extent of dissolving and rendering more fluid the viscid discharge. To this end I gave it and think I have had satisfactory results. The old man's case was an interesting one and at some future time will be reported. I have not discovered that the urine has been materially increased.

CHAS. E. NASH, M. D.,

Little Rock, Ark

An old doctor sought to encourage a young beginner by relating his experience, and declared that he had only had one case during the first three months of his practice, and that was his case of instruments.

The Medical Age.

A SEMI-MONTHLY REVIEW OF MEDICINE.

JOHN J. MULHERON, M. D., Editor.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

DETROIT, MICH., JAN. 25, 1889.

Editorial.

THE PREVENTION OF CONCEPTION.

"And God blessed them, and God said unto them, Be faithful, and multiply and replenish the earth, and subdue it."—*Genesis*, I, 28. This benediction and this command were given, according to biblical authority, something like six milleniums ago, the recipients being none other than our original ancestors, Adam and his wife, Eve. According to the most authenticated records, the command was quite literally obeyed by Adam and his more immediate descendants, and the multiplication was conducted with a vigor and an activity quite beyond the power of the modern, more or less degenerate man. Of course the facilities for multiplication were much more ample then than now, for in those "good old democratic days," men lived well nigh on to a thousand years, and were permitted to have wives without number and concubines illimitable. Those were the days before Malthus lived, and the dangers of overpopulation were not then imminent. In the progress of the ages the order of things changed, and with the change the fecundity of the human family perceptibly abated. We find, however, no formal revocation of the original command in regard to multiplication, but the danger of overpopulation was obviated by the restriction of man to one wife, and the absolute shutting down on concubines. Something less than two thousand years ago monogamy had supplanted polygamy, and concubines were then no longer employed for multiplying purposes. In this year of grace the same condition of affairs in these matters exists. One wife is all a man may have, and as to concubines, they have so completely gone out of fashion that when employed at all it is under the strictest secrecy, and absolutely never for the purpose of replenishing the earth. One would think that with these legal and fashionable restrictions placed on man's procreative propensity, the limit had been reached. But such is by no means the case. There arose, some fifty or so years ago, a school which held that the greatest danger which threatens the human family lies in the repro-

duction of its kind, and to ward it off means of preventing the multiplication which God originally commanded, were gravely discussed.

The descendants of the school referred to, have, it would seem, become unusually numerous and noisy of very recent years, and they have entered the ranks of the profession of medicine. They are beginning to find their way into the medical journals and to declare themselves in medical societies, and we have the somewhat anomalous spectacle of the "disciples of nature," whose highest function we have been taught to believe, is humbly and reverentially to sit at the feet of their Mother, ruthlessly invading her most sacred recesses and despoiling her most holy sanctuary. It is well nigh incredible that medical men and medical women, too (Heaven save the mark!) should be found publicly advocating such a perversion of the sexual functions as places the lawful wife, the noblest gift of God to man, on a level with the bawd. And yet it was our privilege (?) recently to attend a meeting of a medical society in which the question for discussion was "Is the prevention of conception justifiable?" At this meeting there were upwards of fifty representative members of the profession, including a half a dozen or so of women, some young and fair and very bright and winsome, and others who had grown old enough to have become mothers in Israel. Not all of those present at this memorable meeting (the proceedings of which, fortunately for the fair name of the city in which it was held, was not made public) argued for the affirmative of the proposition, and, we are proud to say, one or two who maintained the negative were women. The overwhelming sentiment of this meeting of good physicians was, however, in favor of the affirmative. In the contemplation of such a condition of affairs one becomes well nigh dumb, and the pen drops with a feeling of blank hopelessness. It is but charitable to believe that the expressed sentiment was not genuine, but that it was merely aroused by the seductive eloquence of the gentlemen who had been selected to support the affirmative, and, who, probably, themselves argued against their convictions.

At the memorable meeting of the Medical Society, to which we have above referred, the arguments in support of the propriety of the prevention of conception were those to which we are commonly treated, viz, the production of children beyond the ability of the parents to properly support and educate them, the injury to the mother's health through frequent pregnancies at short intervals, the injustice of forcing a woman to bear the consequences of man's lust, the undue care which large families exact from mothers, *et hoc genus omne*. Among them there is only one, to wit, the injury to the mother's health, which it is at all proper for the physician, as such, to discuss. Our profession has been brought into disrepute before through the assumption of all-knowledge by its members. Instance the *ex cathedra* utterances on psychological and sociological questions and the air of omniscience on the witness stand, by the mere fledgling whose feet have barely found a place on the threshold of the great arcanum which he assumes to comprehend. *Ne sutor ultra crepidam*, and it would become the medical profession in discussing this question (if discuss it they must) to confine themselves to its bearing on the physical condition of the individual—male as well as female. As citizens we are, of course, interested, in common with others, in the sociological features of the question, but our medical education gives us no warrant to discuss them with authority. Such discussion is, therefore, not germane either to medical societies or medical journals.

Is the prevention of conception justifiable, from a medical standpoint? It is, of course, implied that the woman has a normal pelvis and that she is thus able to give birth to a viable child without jeopardizing her own life. The question is best answered after the Yankee method of asking another: Is it proper for the physician to recommend a contravention of a physiological process? This, in our opinion, compresses the whole matter into a nutshell, and we take it that the affirmative answers from those who comprehend their whole duty and obligation as physicians, will be very few. The physician is, of all men, the high-priest of nature's sanctuary, and it behooves him to be exceedingly jealous of any antagonism of nature's methods. More fixed and unalterable than any law of Medes and Persians, are the laws of nature, and to every one of them is irrevocably attached the penalty of its violation. This penalty may not be visited with appreciable directness or with ostentatious display, but we, as physicians, know that it is because of this none the less certain. Is it natural for a man to wear a condom, for the woman to flush her physiologically congested vagina with cold astringent washes, for the man to practice the sin of Onan, for the woman to intercept the orgasm? Who will dare to answer in the affirmative? And yet these are the means recommended for the prevention of conception. From the stand-point of the physician they are no more justifiable than are the means employed for the removal of the results of the entrance of the male fluid to the point where it embraces the ovum. Who will hold that the cavity of the uterus is more sacred than its vaginal vestibule? It is simply an outrage on Nature, a veritable sacrilege, for the physician to lend his countenance to these practices.

What answer shall we give the woman who comes to us for instruction in the means of preventing conception? Shall we cast her off without advice? Not necessarily. If she be poor and weak and have already had more children than she can properly care for, ask her to send her husband around for advice and instruction. When this "monster who appreciates a wife solely as a means of gratifying his lust" comes to see you, give him a little talk on the physiology of procreation. Tell him that while his "imperious passion" may demand gratification, he must endeavor as best he may to subordinate passion to reason. Tell him that there is a period of from ten to fourteen days during the month when a woman is not liable to conceive—when there is no ovum lying in wait for the embrace of his spermatozoa. This is, of course, not invariably the case, but it is a rule to which the exceptions are rare. If he be a reasonable man and have a proper regard for his wife he will not embrace her, sexually, during a period commencing a week before and ending a week after the period of menstruation. This advice we may give without stultifying ourselves as the "disciples of Nature." If it be not heeded the fault is not ours, and it is not our province to redress the wrongs of woman, following the indulgence of blind passion. We should remember the fate of the chivalrous Don Quixote.

The beauties of the association of the sexes in medical societies, received a striking illustration at the meeting of a prominent medical society in a city not many leagues distant from Detroit, at which the propriety of preventing conception was discussed. Where such association does not obtain, there is wont to exist a sort of diffidence on the part of young men in the presence of ladies, which is sometimes painfully embarrassing, and especially so when sexual matters are referred to. The educational advantages of such mingling of the sexes are, therefore, quite marked. In the society referred to the presence of ladies is quite forgotten and there is not the slightest hesitancy on the part of the young men in talking plain medical English. For instance, one speaker held that it was good for man to have sexual connection, and that in his opinion it does women good too. (Faint snickering back in the corner.) Another speaker said the question of preventing conception was one which we as physicians cannot escape, and that for his part he believed in taking the bull right by the horns. Of course this was intended to apply only figuratively, and only the wicked young men smiled. Still another speaker affected to ridicule the high moral plane which some of the gentlemen took in discussing the question. He was particularly severe on one doctor who failed to see any difference in moral turpitude in the adoption of the devices of the brothel and the emptying of the uterus of an unwelcome fœtus. As physicians, he held, we had as much right to advise abortion as we had to advise the prevention of conception. He was everlastingly squelched by being told that he ought to wear black every time he had an erotic dream. Of course the ladies, the young ones particularly, did not "hook on," but from the way the remark was greeted by the males, they must have inferred that it was exceedingly funny. They therefore merely fixed their features into a more expressionless rigidity. One very wicked young man said he detected the slightest suspicion of a twitch in the risorial muscles of the faces of several of the more matured ladies, but that was, probably, a libel. Truly, the discussion of questions of this nature before mixed assemblies is very elevating.

We have it on the authority of the organ of the Medical Department of the University of Michigan, that out of sixty cases of senile cataract operated on in one year at the clinic of that institution, gratis, ninety per cent. were abundantly able to have paid a fee commensurate with the importance of the operation. In one week the poorest of the four patients thus treated was worth fifteen thousand dollars, and the richest could draw a certified check for three hundred thousand dollars. And yet the physicians of this commonwealth are called upon to pay taxes, for the support of this institution.

DANIEL, of the Texas Medical Journal, doesn't like pork. He thinks MOSES knew more of the quadruped in his day than all the sanitarians of the present generation. But the grand old man didn't know anything about ARMOUR'S hams, or how they go with the fruit of the hen. No, brother, the hog is here to stay, and you cannot drive him out with the pen. He has fully persuaded many a modern Jew to be Christian enough to take to him kindly, MOSES and DANIEL to the contrary, notwithstanding.

DR. PARVIN, of Philadelphia, says that one woman in eight is sterile, as a rule, while among those who have fibroids one in three is sterile. DR. GROSS, however, maintains that woman is often blamed because of the man's inability, and that the spermatozoa should be investigated before holding the woman responsible for not conceiving.

DR. FELIX SIMON declares that no specialty can lastingly flourish which aims at independence—at a too complete a separation from the general profession.

The claim of a Kansas City physician that he is making $20,000, cash, a year from his practice causes the Medical Record to inquire what was the name of the late Sapphira's husband.

Medical Progress.

THE USE OF THE BIDET IN SURGERY.—I desire to call the attention of the profession to a method of treatment which, although not altogether new, is yet not appreciated as, in my judgment it should be. I refer to a moderately forcible stream of water of varying temperature in the treatment of a number of affections of the rectum, anus and genito-urinary apparatus. The atonic and astringent effect of such a stream of water upon any living tissue is, of course, a well-understood* fact, and has been employed in the arrest of hemorrhage, in the treatment of inflammation, and in various other conditions. But it has only been in exceptional cases, and usually by the aid of more or less troublesome apparatus that it has been used in the class of cases to which I now refer.

The bidet, as I have now for a few years prescribed it, should be of the variety which can be attached to the water-closet seat habitually used by the patient. It should have a nozzle capable of throwing a stream of about the calibre of an ordinary lead pencil or a little less. The head of water should be sufficient to make it impinge upon the parts exposed to it with enough force to excite there a little sensation of smarting and tingling. That degree of force will, for example, be sufficient for a patient to take an enema, or, if a female, to take a vaginal injection. The bidet pipe should be movable by means of a handle, so that the stream can be directed against any portion of the external genitals, the perineum, the anus, or the surrounding parts. It should also have connection with the hot and cold water supply of the house, so that the water may be used of any temperature which the physician may prescribe, or which the sensations of the patient may make desirable. Stopcocks should regulate the force and size of the stream, and should be so placed as to be easily reached by the hand of the individual sitting upon the water-closet seat. Such an apparatus can be put in place by an experienced plumber, in an ordinary water-closet, at an expense of from fifteen to twenty dollars; and, in this city at least, the usual head of water obtainable even in third-story rooms is quite sufficient for all therapeutic purposes.

The cases in which it may be desirable to use this method of treatment may be divided into two classes: first, those affecting the lower end of the bowel and its outlet; second, those involving the genito-urinary system. Among the first the most important are hemorrhoids, internal and external, prolapsus ani, and slight cases of prolapsus recti; pruritus ani and eczema of the margin of the anus should also be included in this group of cases in which it has now for some time been my habit to prescribe the systematic employment, twice daily, of the bidet, once immediately after the daily stool, and for the second time, by preference, just before going to bed. As a rule, in all but the mid-winter months, the ordinary temperature of Schuylkill water is that to be preferred, although I am largely governed by the feelings of the patient in this respect. An enema should be taken at each of these times, the lower portion of the rectum being thus thoroughly washed out at least twice daily, after which the stream of water is allowed to play upon the affected region for a period of from five to fifteen minutes. The ordinary and useful effect of cool sponging or washing immediately after stool in cases of hemorrhoids is by this means enormously increased: internal hemorrhoids will, under this treatment, in many cases almost entirely disappear, unless they are exceedingly large and have been frequently inflamed or strangulated and badly neglected: external hemorrhoids, even when fleshy, will shrivel and become scarcely noticeable.

I could detail a number of cases of this character taken from my practice of the last two years. In some instances in which I had been habitually called in, at intervals of a few months, in the cases of old people, the result has been practically their disappearance from my list of patients; and they speak in the warmest manner of the great comfort which they have derived from this simple method of treatment.

Perhaps nothing is more distressing among minor afflictions than the trouble described as pruritus ani, and variously attributed to liver disease, constipation, gastric troubles, latent gout, uterine disease, parasites, neuroses, and a number of other causes, varying from the eating of shell-fish, or excessive smoking, to alleged hereditary predisposition. There are very few practitioners of any experience who have not discovered how difficult it is, in any particular case of pruritus, to assign distinctly the annoying symptoms to any one of these causes. Often the whole list may be carefully gone through and eliminated, or the proper remedies may be applied successively, as different theories are adopted, without the slightest benefit resulting. Ointments, lotions, *ordinary* cool bathing, will be tried in great variety, but without avail; and such patients will often go from one physician to another, or will fall into the hands of quacks while seeking relief. My list of cases of this character which I have now treated by means of the "bidet" comprises eight, one of which it may be worth while to mention in a little more detail.

Mr. —, aged thirty-five, a lawyer by profession, of somewhat sedentary habits, but in good general health, applied to me in January, 1887, on account of a long-continued pruritus, which, he said, was simply making life miserable to him; he was a man of great intelligence, who had secured the best medical advice in this and other cities, and who gave a graphic description of his sufferings. Whenever, after sitting for a time at his desk, the buttocks and perineum would become warm, itching would begin, and would presently become intolerable, so that he would be absolutely obliged to rise, and, if he was not alone, to make some excuse to leave the room, in order to obtain ease temporarily, by scratching. At night, after he became warm in bed, his trouble —as is usually the case with such patients—became much worse, so that often a large portion of the night was rendered sleepless, and the sleep which he did procure was broken and disturbed. He frequently awakened with a start, finding himself digging at the parts with his

*Agnew (Surgery, vol. i, p. 445): "There is something peculiar in the action of a fine stream of water; it produces a much more energetic contraction of muscular fibre than that caused by bathing or sponging."

nails. He was losing flesh rapidly, was becoming unable to attend to the ordinary duties of his profession, was annoyed and mortified, even when in court trying cases, by the almost irresistible impulse which he felt to apply friction to the irritated region, and naturally was intensely depressed and despondent.

He brought me copies of the prescriptions which had from time to time been given him, and which covered almost the entire ground of the above-mentioned list of possible causes. I had—fortunately for him and myself—just been successful in a case of much less severity, in procuring relief and apparent cure by means of the bidet; I promptly prescribed it for him, instructing him as it was January, to use the water at a temperature a little short of tepid, and prescribed in addition, only an ordinary oxide of zinc ointment, for the relief of a little eczematous irritation produced by his scratching. His improvement was immediate and marked, and at the end of two weeks he said that he had merely a trace of his former trouble, which soon after entirely disappeared, and he has ever since remained free, although he has been compelled to take long trips away from home, and thus obliged to intermit his treatment.

Some of my other cases are of equally striking character. They have nearly all resulted in cure; requiring to attain that end simply different lengths of time of the application tion of the douche, with variations in the temperature of the water, and occasionally the use of some emollient salve. I have been particularly struck by the fact that these cases include among their supposed causes widely distinct conditions, and the uniformity with which they have yielded to this simple treatment has led me to regard with suspicion the orthodox etiology of the disease. In procidentia ani, and in slight cases of prolapsus recti, I have had very satisfactory though, of course, less striking results. In a few instances the trouble almost entirely disappeared, and in all of them it was distinctly relieved. These cases require for their successful treatment a much longer application of the douche, and the water should, in my judgment, be at one or the other extremes of temperature, either quite cool or as hot as can comfortably be borne.

I am quite aware that the use of cold water in these affections is not in the least a novel plan of treatment; but the method under consideration combines the effects of temperature with a sufficient force of the stream, and admits of the prolonged application of the remedy without effort on the part of the patient, who is in the most suitable position for this treatment, practical points which induced me to make this mention of my results in rectal and anal cases.

Agnew says of pruritus, that among the local remedies frequent ablutions with cold water should be mentioned; and of prolapsus ani et recti, that "in all cases where remedies have proved unavailing, or where patients have declined an operation, much good may be done by douching the parts with cold water and applying an oiled compress;" and Allingham says of the same class of cases, that "the frequent and bountiful application of cold water is to be most strongly recommended;" but few authors, so far as I know, have especially alluded to the method of application by means of a bidet.

My second class of cases includes, chiefly, certain prostatic troubles, varicocele, atonic impotence in the male, and pruritus of the vulva or vaginitis in the female. In cases of varicocele, although I have not succeeded in effecting a cure in any instance by this method, I have certainly seen advancing enlargements of the spermatic veins become stationary; long, relaxed, and pendulous scrotums become firm and much smaller; and the mental condition of the patient—which is so important an element in many of these cases—share in the improvement. In chronic prostatitis, a most intractable and distressing ailment in many instances, it has come to be a part of my routine treatment to order the use of cold perineal douches by means of the bidet, associated with frequent cool enemata given in the same manner; and I believe to-day that if I had to discard all therapeutic measures but one in these cases, I would retain this one. In a certain number of cases of impotence associated with general muscular weakness, loss of tone, lack of general strength and vitality, accompanied by imperfect or rapidly subsiding erections, I have found that the cold douche applied with some force and for considerable lengths of time to the perineum and testicles has been productive of marked benefit.

In two cases of pruritus vulvæ my results have been good, though less striking than in the similar disease affecting the region of the anus. In vaginitis, where the woman has sufficient intelligence to learn how to take an injection by means of the bidet, it offers an admirable method of cleansing the vagina, of carrying away thoroughly all accumulated secretions, of reducing heat and swelling, and at the same time avoiding the frequent introduction into the inflamed canal of a foreign body in the shape of the nozzle of a syringe. My opportunities for observation in this class of cases have been limited, owing to the disinclination of these patients to procure the bidet, and owing to their irregular habits of life and their frequent changes of residence; but I have seen enough of its good results to make me feel confident that it is a valuable addition to our therapeutic agencies.

After all, in every one of the cases which I have mentioned, its use is simply the application of the most elementary and common-sense principles to everyday practice, but I am satisfied that this particular method of applying these principles has not received the attention which it merits.—DR. J. W. WHITE in *Medical News*, Jan. 12, '89.

ALKALIES IN THE TREATMENT OF ECZEMA.—It is the condition under which eczema appears in those who are predisposed to it that we have to consider in our treatment. First we have mechanical irritation, such as friction of clothes, scratching, and many of the irritations giving rise to "trade eczema." Here, of course, the treatment consists in removing the irritation, or artificially protecting the skin against its effects. Next comes chemical irritation, such as arises from irritating medicaments and morbid discharges. These again must, of course, also be removed or neutralized. Tem-

perature sometimes acts locally, as in patients suffering from so-called *eczema solare*, in those exposed to artificial heat, and again in those exposed to cold and to dabbling in water. In all these cases it is often impossible to cure the eczema unless the exciting cause is recognized and removed. Many of these cases, however, are simple dermatitis and not true eczema. Then as to the internal causes. I believe there is an eczematous diathesis which lies at the bottom of all forms of eczema, but that this tendency is only awakened under certain conditions. We have found the local conditions to vary, the general may vary also. It will naturally be found, in all cases of true eczema, that the patient is "out of health," or feels "out of sorts." I do not think, however, that an exhausted nervous system, whether from worry, overwork, or excessive strain, is ever a factor in the production of eczema. It flourishes, indeed, amongst the weak and sickly, but not amongst the class we term neurasthenic. Undoubtedly the most common association of eczema is with some derangement of digestion. This will be found actually to exist or to have lately been experienced. Dyspepsia is a very frequent concomitant. I cannot help thinking that we have here the *fons et origo malis*, although some authors consider the nervous system chiefly at fault. But as I am not now debating the pathology of eczema, I shall only allude to the improper feeding of infants and the presence of uterine disorders as two other conditions under which this affection of the skin appears. The frequent occurrence also of eczema in those of the rheumatic diathesis must not be forgotten, as it often proves a most useful guide in treatment. Acting on on the principle that acids applied to an acid-secreting surface and alkalies to an alkaline-secreting surface diminish the respective secretions, I have treated a large proportion of cases of eczema for many years by alkaline applications. The method may be termed unphysiological, on the ground that the morbid exudation of the eczematous skin has no parallel with the normal secretion of glands. My answer for the present must be the results. There is not the slightest doubt that an acid applied to an eczematous surface will irritate and increase the exudation, and I am equally satisfied that alkalies judiciously applied will have a contrary effect. Whatever views we may have on the pathology of eczema, the great diversity of methods shows that at present we have no very definite *rationale* of treatment. At the same time I do not argue that alkalies have any specific action. No one who has seen much of eczema can doubt that the associated disorder to which these patients are most subject is that connected with their digestive organs. The internal treatment is therefore undoubtedly of paramount importance. The one thing which appears most successfully to meet this indication is some saline aperient, which produces a "weeping" from the mucous surface of the intestines and also hurries on the contents. This clinical fact suggests that the cause of eczema lies in some imperfect process of digestion, whereby abnormal chemical compounds are absorbed, and, circulating in the blood, irritate especially the skin structures. These compounds are, I admit, unknown. Not only, however, are saline aperients successful in the treatment of eczema, but alkaline combinations are especially so. The most common prescriptions contain these drugs in endless variety. This treatment is very successful for adult patients, but it is not nearly so useful in the eczema of young children. In these cases, however, alkaline external applications are as successful in those of riper years, if not indeed more so. Whether the fault in adult life lies in deficiency, and that of eczematous children in excess, of secretion of acid gastric juice, is difficult to decide; but the internal administration of alkalies combined with saline aperients in the eczemas of grown-up people is that on which the greatest general reliance can be placed. In children, however, an exactly opposite line of treatment will often be found successful. It is especially in scrofulous children and in infants that I have found benefit from the internal administration of hydrochloric acid. These little patients have generally some palpable digestive disturbance. I have frequently found unexpected benefit from the internal administration of nitrohydrochloric acid combined with sulphuric acid, at the same time pursuing the external application of alkalies. These latter may be used as solutions of bicarbonate of sodium (5 or 10 grains to the ounce), sometimes combined with small quantities of glycerin, or as weak solutions of liquor potassæ (10 or 30 drops to the ounce). As a general rule it may be said that the more acute the eczema, or rather the more copious the exudation, the weaker must be the application. It should be made, whenever possible, continuously. In chronic cases an alkaline ointment may sometimes be used, such as one containing 10—30 grains of bicarbonate of sodium to the ounce of vaseline.

The above is a brief sketch of the methods I have successfully adopted in a very large number of cases, many of which had been treated on other principles and with entirely different drugs without avail.—Frederick Pearse, M. D., in *Practitioner*, Oct., 1888

THERAPEUTICS OF VALVULAR HEART DISEASE.—Prof. Da Costa's comprehensive paper on this subject (Trans. Asso. of Amer. Phys.) is worthy of the closest study. It embodies the results of years of experience in the management of cases of valvular disease. Great stress is laid on the fact that success in treatment depends far less on attention to the precise valve affected than on an intelligent recognition of the state of the cardiac muscle fibre, the size of the cavities, the condition of the vascular system, the age and cause of the valvular lesion, its secondary results, and the general health of the patient. In a "compensated" affection, cardiac drugs are not required, but efforts should be made to maintain the heart muscle and cavities in a healthy condition by regulating the patient's daily life and habits. Excessive cardiac growth and force require cardiac sedatives, such as veratrum viride and aconite. Later, the appearance of œdema of the ankles, engorgement of the viscera, arterial ischæmia, irregular heart with increase in extent of area of impulse but diminution in force, indicate failure of "compensation" and call for the persistent employment of moderate doses of digitalis. In slowly deteriorating compensation he has rarely found it necessary to exceed five minims of tincture of digitalis, twice daily,

continued until the effect on the heart and pulse is perceptible, and then suspended, to be resumed according to circumstances. In cases where the compensatory cardiac hypertrophy is gradually lessening in proportion to the valvular defects, characterized by great aggravation of the above-mentioned signs of failure of compensation, larger doses of digitalis exert a wonderful influence; twenty-five minims of tincture may be required every second or third hour. While taking these large doses the patient must keep at rest. The action of the drug is assisted by ammonia and brandy. The mischief having been checked, smaller doses of digitalis will maintain the good effect. With the above state of things, should the cardiac muscle fibre be undergoing degeneration—a condition not easy of recognition but one we may suspect from the age and aspect of the patient, and the fact that the heart does not respond to cardiac tonics—digitalis or kindred agents are of less use, but may be tried. Stimulants should be used steadily, and arsenic or strychnia are worthy of trial.

Excessive hypertrophy with but slight dilatation, oftenest encountered in aortic affections, particularly regurgitation, is best treated by aconite, which diminishes the arterial blood-pressure. Prof. Da Costa employs one minim of the tincture every fourth or sixth hour for a few days, and then only twice daily. Veratrum viride has similar applicability but is more apt to nauseate. He has often employed with the happiest results a combination of one drop of tincture of aconite, three drops of tincture of veratrum viride, with seven drops of tincture of ginger.

Extreme irregularity in the cardiac rhythm is a striking result of imperfect compensation. It is frequently present in mitral stenosis and calls for belladonna in full doses as an adjunct to digitalis. Given alone, belladonna is of but slight use as a cardiac tonic.

The condition of the vascular system demands treatment equally with that of the heart. We have as yet no one remedy that will both increase cardiac power and lessen resistance *a fronte*. Digitalis increases the latter, and recent researches suggest that strophanthus acts similarly, though to a much less degree. Nitroglycerin and the nitrites lessen vascular resistance, but are without any direct effect on the cardiac muscle. By a judicious combination of nitroglycerin or atropine with digitalis or strophanthus we may obtain full cardiac power without resisting vessels.

Regarding the cause of valvular mischief, the most prominent is rheumatism, and following that the atheromatous changes of advancing years or Bright's disease. Unfortunately we possess no remedies to influence the results of rheumatic endocarditis, when the acute stage is fairly over. Three months after the attack the attempt is useless. Before this, recumbency with a course of iodides and blisters is worth trying. It generally fails, but may occasionally succeed. We have no solvents to influence degenerative states.

Regulated muscular exercise is of use in valvular disease, to sustain the nutrition of the heart, but the production of shortness of breath should be avoided. Except for the gouty, alcohol may be allowed in cases in which we think digitalis applicable. When renal insufficiency and scanty diuresis exists, caffeine is of the greatest service. There is no better diuretic than caffeine in cardiac cases. Purgatives should be oftener given in valvular disease. They deplete the portal circle, remove the catarrhal condition of the stomach and bowel, and lessen the liability to dropsy.

Digitalis is yet the most important and useful of all the remedies used in the treatment of heart diserse. Among the substitutes proposed the best are caffeine, strophanthus, and adonidine. Cocaine is a cardiac stimulant and tonic not devoid of diuretic powers. Prof. Da Costa is now using barium chloride a great deal. He finds it is both a systemic and a cardiac tonic. It gives tone to the blood-vessels, is a fairly good diuretic, and can be taken for a long time without disordering the stomach. It lessens cardiac pain. The initial dose is gr. $\frac{1}{10}$ three times daily, gradually increased.—*The Polyclinic*, Dec., 1888.

Antisepsis in New-born Children.—For the avoidauce of septic diseases in new-born children the following rules are recommended by Dr. Miller: 1. With regard to cases of pyæmia, it is not generally in our power to prevent the septic infection of children during fœtal life. Accoucheurs must be particular to enforce rigid antiseptic conditions during the last days of pregnancy and during labor, this applying to attendants, clothing, instruments, the patient, and the accoucheur himself. 2. To avoid pyæmia in the new-born from a gangrenous or putrid condition of the navel, midwives must be carefully instructed as to the proper care of the navel wound after the stump has fallen. The cord should be divided with scissors which have been made aseptic, perhaps by passing them through the flame of a spirit-lamp. The ligature must be aseptic, the stump should be washed in a three- or five-per-cent. solution of salicylic acid or boric acid, and then covered with absorbent cotton. One should endeavor to obtain mummification of the stump as soon as possible, and for that purpose only dry dressings are indicated. Should the navel suppurate either before or after the fall of the stump, it should be carefully washed with a weak solution of carbolic acid, dried, and then receive an application of a two-per-cent. solution of nitrate of silver. After this only antiseptic powders should be used. 3. Since gonorrhœal virus appears to be responsible in some cases for inflammation of the navel, the latter may be avoided by using a two-per-cent. solution of nitrate of silver, the same as Credé has recommended for the eyes to prevent gonorrhœal ophthalmia. In any case in which the mother has leucorrhœa this application should be used, without fail, for the eyes and for the navel. 4. Aphthæ are found in the mouths of almost all children in foundling asylums; some of them have it when they enter, and others get it after they have entered, for it is almost impossible to secure a careful cleansing of the mouth in every child in a hospital after each nursing. Not infrequently the wet-nurses who nurse two babies neglect to cleanse their infected nipples sufficiently, and transmit the disease by this means from one baby to the other. The crowding of children in public institutions favors the extension of such diseases. In atrophic children, after the aphthous membranes have fallen there fre-

quently remain ulcers or fissures in the mucous membrane, which act as avenues for the passage of septic material. To avoid infection, it is desirable in hospitals to insist upon the washing of the mouth at least once daily with an antiseptic solution—perhaps of boracic acid after which the aphthous membrane should be touched with a solution of resorcin, permanganate of potash, boracic or salicylic acid, upon absorbent cotton, no piece of cotton being used for more than one application. The ulcerated portions should be touched with the nitrate of silver solution. 5. Since infection may be transmitted by the folds of the anus, it is essential in cases of erythema ani and rhagades that there also should be antiseptic treatment of these parts. The same remark applies to intertriginous patches and lesions of the skin of the head or any other portion of the body which may have been produced during labor. 6. The use of antiseptic precautions is also necessary in vaccination. In foundling asylums, where vaccination is performed soon after birth, erysipelas and phlegmonous inflammations have become much less common where antisepsis is employed. 7. The greatest care must be used in washing the skin of new-born infants on account of its ready absorbability. A two per-cent. solution of carbolized oil has been known to produce the most violent symptoms of intoxication. Salicylic acid is also too poisonous when used in solutions of ordinary strength. For very young children boracic acid is much the safest agent for disinfecting purposes, and its general use is therefore recommended to midwives.—*Archives of Pediatics*, December, 1888.

THE TREATMENT OF DELIRIUM TREMENS BY STRYCHNINE.—To Luton, of Rheims, is due the systematic treatment of delirium tremens and alcoholism by large doses of strychnine.* Luton recommended doses of five milligrammes, one-twelfth of a grain, by hypodermic injection, or by mouth, these doses to be repeated twice or three times a day.

Amagat, by some curious experiments on hares, which were given toxic and even fatal doses of alcohol, found that all dangerous effects might be averted by giving to each animal, simultaneously with the poisonous dose of alcohol, one milligramme of strychnia.†

Dujardin-Beaumetz has repeated the hospital experiments of Luton, with uniformly good success.‡ He says: "Since the communication of Luton, I have many times had recourse to this strychnine treatment in my wards at St. Antoine, and always with successful results. I administer the sulphate of strychnia in subcutaneous injections, and I begin, as does Luton, with a dose of five milligrammes, which I repeat in five hours; sometimes a third injection during the day is needed." Beaumetz, by experiments on animals, has found "that there exists, within certain limits, a real antagonism between the action of alcohol and strychnine, and vice versa."

In the Bulletin de Thérapeutique, 1885, vol. cviii, p. 177, there is a communication from Drs. Journet and Bounaud, in which they give favorable results from a series of trials in private practice of this remedy in delirium tremens. One patient took in the course of three days upwards of two grains of strychnine subcutaneously not only with no toxic result, but with the most marked benefit, the insomnia, agitation, and delirium disappearing under the use of the remedy. Sleep was in some instances induced where opium, chloral, and other hypnotics had failed.

Lastly, in the current number of the Bulletin, October 15th, appears an artice by a Brazilian physician, Dr. Manoel Ramos, "On the employment of strychnine in delirium tremens," in which he extols the effects of this remedy. He also has witnessed the superiority of strychnia over other remedies, notably opium, morphine, chloral, and paraldehyde, in controlling the disordered manifestations of alcoholism. Hypodermic injections of strychnine, one-twelfth of a grain, followed by hypodermics of morphine, one-sixth of a grain, in delirium tremens, have in some cases in his practice been followed by deep and prolonged sleep.

Dr. Ramos thus concludes his communication:—

"I believe, with M. Luton, that in chronic alcoholism there is inertia of the excito-motor properties of the spinal cord, which enables the patient to tolerate large doses of strychnine; in some cases as much as four cgs., nearly one grain, may be required. I believe that strychnine has in these cases a substitutive action on the nerve centres, thus antagonizing the excitant action of the alcohol. These centres are habitually over-excited by alcohol; when the stimulant fails, the troubles of the cerebrum cause delirium, and those of the cord, trembling; for we may say, with Torres-Hommen, that "delirium is the trembling of the brain, while trembling is the delirium of the spinal cord." It is necessary, then, to find another excitant. Morphine and other preparations of opium tolerably fulfil this indication, but better than all, and especially when opiates fail, are the large doses of strychnine.—*Boston Medical and Surgical Journal.*

LANDERER ON A NEW METHOD OF TREATING TUBERCULOUS AFFECTIONS.—The object being to cause cicatrization by inflammation artificially caused, the author, after trials of many things, has fixed upon Peruvian balsam. Sayre's remarkable success with this in spondylitic abscesses induced the author to try it. Applied as a plaster to tuberculous ulceration of glands, Peruvian balsam, though having no action at a distance, causes rapid healing. Internal tuberculous foci were injected by the author with the balsam in the following form: ℞. Bals. peruv., muc. gum. arab., āā 1.0, ol. amygd., q. s., ut fiat emulsio subtiliss., sod chlor. 0.7, aq. dest. 100.0. This emulsion was used in parenchymatous and intravenous injections. In fifty-one cases the balsam was used. In sixteen the glands were affected, and the balsam was applied as a plaster; any fistula were injected with the balsam in ether, or packed with gauze saturated with balsam; treatment lasted four to twelve weeks, and permanent cure was obtained. Two cases of fungoid ulceration were cured by division, scraping and packing as before. Twenty-nine

*Bull. gen de Thér., 1860, t. xii, p. 241.
†Jour. de Thér., 1876, p. 378.
‡Bull. gen. de Thér., t. cvi, p. 1

cases of bone disease included two of the spinal column, one psoas abscess, and one lumbar abscess (the former was injected with the balsam in ether, the latter was plugged), and three of the hip-joint; all cured. The other cases are given all cured or greatly improved at the time of writing. The lung cases were four, two being far advanced, and these were greatly improved by intravenous injections (1.0 gram twice a week). Two slighter cases were cured. Bladder-tuberculosis was cured by two injections (10 cubic centimetres of a 2.5 per cent. emulsion). The patient is at work three years afterwards. The above mentioned emulsion is thus used: Five or ten drops are poured into a porcelain capsule, and a 0.7-per-cent. solution of NaCl (filtered and made alkaline by a drop of caustic soda) is added drop by drop till the emulsion is made feebly alkaline, the yellowish-grey emulsion taking a greenish tint. The whole is strained through linen, and is now ready for use. For intravenous injections each specimen must be examined microscopically, and, if fat-drops larger than red corpuscles be found, must be rejected. The dilute emulsion only lasts a few hours, but the concentrated keeps for weeks. Parenchymatous injections are made deep to the bone, or into the distended articular cavity, or into fungoid masses; the quantity is usually half to one cubic centimeter. The injection is painless, or nearly so. Intravenous injections are made by a fine cannula into a vein of the arm after its distension has been caused by a bandage applied higher up the limb rather loosely. If a little swelling arises as the injection is gently made, the cannula is not in the vein, and had better be withdrawn and inserted somewhere else. The quantity must not exceed one cubic centimetre. This treatment is not warmly advocated by the author in cases of pulmonary tuberculosis which are far advanced.—E. J. Edwards, M.D., in the *London Medical Record: Journal of the American Medical Association.*

NAPHTHOL IN ENTERIC FEVER.—From a careful clinical study of the use of β-naphthol in typhoid fever, Dr. J. Michell Clarke, of London, draws the following conclusions:

1. That the production of intestinal antisepsis is a rational mode of treatment of enteric fever, and that β-naphthol is a safe and tolerably efficient agent for this end.

2. That by its use in the above cases the duration of the disease was shortened, and the intensity of the symptoms directly arising from profound disturbance in the alimentary canal was lessened.

3. That the tendency to the occurrence of splenic enlargement, albuminuria, and of secondary complications such as boils, abscesses, etc., of purulent infective origin, is diminished.

4. That complete convalescence is more speedily and satisfactorily attained: and that there is less risk of a propagation of the disease to others.

Finally we must bear in mind that in some patients naphthol may excite so much gastric disturbance as to prevent its use.

β-naphthol was administered suspended in milk, and a small quantity of pure milk was taken after the dose. The doses must be administered frequently, in order to keep up a constant effect, and small doses have also the advantage of not giving rise to the pungent after-taste in the throat that naphthol is apt to produce. To adults it may be administered in gelatin capsules, or the following formula, which seems the most satisfactory after several trials, may be made use of:

℞. β-naphthol, gr. xx.
Tr. aurantii, ʒ ij.
Syr limonis, ʒ ss.
Mucilaginis tragacanthi, ʒ iij.
Aquam, ad ʒ vj.

Dose, ʒ j.

Taste, however, is practically abolished in most cases of enteric fever, and the patients to whom it was given in milk made no complaint on this score.

Out of seven cases, four—of whom two were boys of twelve years—took the drug in doses of three and a quarter grains every two hours during the whole course of the disease, until the temperature remained normal for five or six days: one boy, aged ten, took gr. iss instead of gr. iij doses.

Whilst giving naphthol it is also advisable to control the pyrexia that necessarily occurs in the course of enteric fever, and so prevent the damaging effects on the tissues and organs of the body of a long continued high temperature: we should, therefore, together with naphthol, administer an antipyretic, preferably perhaps antifebrin or phenacetin, whenever the temperature rises beyond a certain height, say 102° F.—*The Practitioner*, December, 1883; *Medical News.*

THE USE OF HAMAMELIS VIRGINICA IN VARICOSE VEINS AND LEG ULCERS.—Some of our readers will perhaps have read the article by Dr. Musser in the Philadelphia Medical Times, April 21st, 1883, and that of Dr. B. F. Nichols in the same journal for August 23d, 1884. If so, they will most likely have tried this drug with more or less success. Notwithstanding the fact that careful physiological and chemical researches have been made by Wood and Marshall, our knowledge of its action and its active principles is very limited, but it would seem proved that it certainly possesses very great powers in the conditions named. In some of the cases reported in the articles above quoted, the venous stasis was such that some of the veins had ruptured and the legs were a perfect mass of ulcers, making locomotion impossible and life worthless. The physicians however used only half a drachm to a drachm of the fluid extract. Although the results reached by them were surprising, we wish to call attention to the erroneous impressions as to the dosage of hamamelis, both then and now. One of the first persons to use this drug was Professor Ringer, of London, and he also, at the time he wrote of it, believed these doses to be correct. At present, however, he thinks that larger amounts should be employed, as a teaspoonful of the tincture at a dose, which may be repeated every three or four hours. This amount is perhaps only necessary in severe and intractable cases, but it is well to know that the drug can be used fearlessly when occasion requires. For ordinary mild

cases smaller doses seem equally useful and do not clash with the goodly therapeutic maxim to use no more medicine than is necessary.

In a case recently under our care the use of fifteen minims every four hours acted most happily, while great relief was afforded locally by the application of a piece of surgical lint saturated with a lotion composed of an infusion of the drug. Very high authority informs us that it is frequently equally useful with the oil of erigeron in checking uterine oozing of blood, and numerous clinical observers are in accord in regard to this point. Nothing has recently appeared in the journals concerning it and we are at loss whether to take this as a sign of professional disfavor or as a sign of such unqualified praise that it is thought unnecessary to say more of it. If any of our readers have seen any valuable instances of its powers we shall be glad to hear from them.—*University Med. Magazine*, Dec. 1888.

IODOFORM IN CHRONIC RECTITIS.—Chronic rectitis, associated as it ordinarily is with ulceration of the mucous tissue, is an extremely annoying disease to the practitioner, and a distressing and dangerous one to the patient. Not only an impairment of the general health follows it, but a constant menace from hepatic complication must be recognized. The physician's attitude toward his patient is, at the same time, often rendered a sorely trying one, by the refusal or hesitancy of the patient to submit to such means as are ordinarily deemed essential to a cure. The use of the rectal speculum, the dilatation of the sphincter anus, etc., is often confronted with great aversion, and in deference to this feeling physicians often reluctantly yield and adopt other plans. It was with this feeling and with the view of preventing septic disturbances of the liver that we first ordered suppositories of iodoform inserted into the rectum.

The condition was one following a violent and protracted dysentery in a delicate female, æt. 17, whose prejudices against what we deemed the proper treatment could not be overcome. The discharges from the rectum had contained pus and blood for three or four months previous to the adoption of iodoform treatment; the actions exceedingly frequent and the sphincter so weakened as to not always successfully perform its functions. A considerable inflammatory action in the integuments around the anus was complained of and the peculiarly distressing pain in this region also evidenced the existence of a fissure. After repeated efforts to secure an examination without success, we ordered suppositories of cocoa butter, each containing five grains of iodoform. At first they were not long retained and one was used after each action. When subsequently, they were retained, one was used in the morning, at noon and at bedtime. During the third week of treatment one suppository was used in the morning and one at bedtime, and for the fourth week one was inserted on going to bed each night, although no evidences of disease remained. The improvement was gradual but from the first insertion perceptible to the patient.

Since the above experience we have treated three similar cases with like success. One of these had had the ulceration exposed and cauterized with nitrate of silver. The others were not examined with the speculum but had had chronic dysenteric conditions of the rectum for some time. No medicine was used internally in either case.—*Memphis Medical Monthly* Jan., 1889.

ANTIPYRINE IN RHEUMATISM.—Dr. Henry Sokotowski, of Cracow, has made a number of experiments with antipyrine in the treatment of articular rheumatism. Of 86 cases observed by him, 68 were accompanied with moderate fever, 18 were without fever. In the former a complete cure was obtained 29 times, or 42.6 per cent.; in the latter, 7 times, or 18.8 per cent. In the whole number of cases a cure resulted 36 times, or 41.8 per cent. The pain diminished after a few grammes of antipyrine had been taken, and very often disappeared after two or three days, less frequently after a longer time, presenting at the same time fluctuations, in its intensity, although after every dose some relief was observed. The swelling continued sometimes longer than the pain. The temperature fell to the normal on the third day at the furthest. The duration of treatment was, on the average, 19 days in the cases with fever, and 32 days in the apyretic cases. The cases in which a complete cure was not obtained were divided into the following categories: 1. The pain and swelling ceased temporarily, but if the drug were withdrawn they reappeared, and afterwards the remedy had no influence on the illness (six cases). 2. The pain and swelling ceased temporarily, but returned in the same or in other joints, in spite of the continued administration of the antipyrine (eight cases). 3. The pain diminished temporarily, but the swelling did not disappear (five cases). The drug exerted no influence on the course of the disease in twelve cases. Few or no unpleasant effects were observed during the administration of the remedy. Comparing the results of the treatment of articular rheumatism by antipyrine and salicylic acid, the author found that a cure was obtained by antipyrine in 41.8 per cent., and by salicylic acid in 31.8 per cent. Dr. Sokotowski concludes as follows: 1. Antipyrine deserves more the name of a specific remedy in rheumatism than salicylic acid, because it surely removes all signs of rheumatism, acute and chronic. 2. Its analgesic action, positively confirmed in neuralgia, in hysterical pain, and in tabes dorsalis, by Guttmann, Strzeninski, Sée, and others, very seldom fails. 3. The unpleasant effects very often observed during the administration of salicylic acid, and dangerous in heart diseases, are very rare when antipyrine is given, and therefore do not limit the application of this valuable medicine.—*Przeglad Lekarski*, No. 42, 1888.—*Med. Record*, Jan. 19, 1889.

IODOL AS AN INTERNAL REMEDY.—Dr. Daute Cervesation, of Padua, gives, in the September number of Lo Sperimentale, an account of his observations on the internal administration of iodol, the first of which were made upon scrofulous patients, in whom the remedy acted very favorably in whatever form it was given. It acted best when the lymphatics had not as yet undergone purulent infiltration. In scrofulous affections of the

mucous membranes, such as scrofulosis of the nose, or scrofulous otitis, the beneficial action was but limited, and still more limited in scrofulous affections of the skin. The author administered the iodol to children in daily doses of 8–15–25 grs., continued from two to three months, with good results. The internal administration was supplemented by external inunction of an iodol salve (1 part to 15 of vaseline), or by iodol insufflations. The remedy was well borne; the appetite and digestion generally improved.

In diseases of the respiratory organs, the drug was given in from 15 to 45 gr. doses, in conjunction with the inhalation of the following solution:

Iodol, 1 part dissolved in 5 parts of heated alcohol, filtered; 10 parts of glycerin, heated to 60° to 70° F., were then added, and before the solution cooled, 10 parts of water were also added. For each inhalation, of which two or three were taken daily, 4 drachms of this solution sufficed.

In the first stages of laryngeal tuberculosis, great improvement was observed, but still greater beneficial results were obtained in acute and chronic laryngitis. In tertiary syphilis, the specific action of this drug was well marked. Two cases of syphilitic suppuration of the roof of the mouth and syphilitic ulcers of the pharynx, healed under the internal administration and external application of iodol, continued for two months. Internally the iodol was administered in from 15- to 40-grain doses, while locally the following was applied:

℞ Iodol, 15 grs.
Alcohol, ʒ jv.
Glycerin, ʒ j.

In none of the cases treated were any symptoms of iodism observed.—*Wiener med. Presse*, No. 49, 1888; *Medical News*, Jan., 5, 1889.

Remarks on the Diagnosis and Treatment of Diseases of the Brain.—J. Hughlings Jackson, in a highly instructive addresss (Brit. Med. Assoc.) on the above subjects, stated, with reference to so-called functional disease, that he does not believe there can be any kind of symptoms without accompanying abnormal changes, however slight they may be in some cases. He considers the lesion of chorea to be in some convolution of the motor area, due to plugging of the arterioles. Epilepsy proper he thinks depends on a persistent local lesion* in the highest centres on one side of the brain. It, like epileptiform seizures, can only be treated radically by excision of the discharging lesion. Unfortunately this is impossible in true epilepsy, since we do not know the exact seat of the lesion, which differs in different epilepsies. Palliatively much may be done by diminishing the over active local nutritive processes in the arterio-cortical area which maintain the high instability of cells of the discharging lesion. Less active nutrition and more stability of tissue are induced by diet, exercise, and the administration of certain drugs, such as bromides and belladonna. Nitroglycerin is given to lower arterial tension; he has had but little experience with it. Epileptic attacks usually cease in febrile diseases, probably because the relaxation of arterial tension induced by the febrile process permits the cortical discharging lesion to receive less blood. Dr. Jackson questions if the good effects of the seton in some cases of epilepsy are not due to the induction of a miniature febrile condition. The necessity for maintaining lowered arterial tension is an additional reason for permitting but small amounts of highly nitrogenous food, such as meat. Very particular attention should be paid to the state of the pulse in epilepsy.—*The Polyclinic*, Dec., 1888.

*Dr. Jackson believes that, in some cases of true epilepsy, and in some cases of epileptiform seizures, the lesion is linked to plugging of a small cerebral artery, which produces in its surrounding area a state of over nutrition of an inferior kind, leading to high instability of cells.

Antiseptic in Treatment of Typhoid.—Dr. J. Burney Yeo, has recently obtained good results (Satellite) with the following which used to be a favorite remedy of the late Dr. Bence Jones, of St. George's, in the treatment of malignant scarlet fever: Put one drachm of powdered chlorate of potash into an empty twelve-ounce bottle, add one drachm of strong hydrochloric acid; a greenish-colored gas at once begins to come off, composed in part of chlorine. Keep the bottle stopped with the finger for a few minutes, until it has become filled with the gas, then add water, little by little, shaking up the water with the gas at each addition, until the bottle is nearly full. You will have in the bottle a solution of chlorine, together with hypochlorous acid and a small quantity of unaltered chlorate of potash and hydrochloric acid. To this solution add sulphate of quinine in the proportion of two to three grains to the ounce and a little syrup. The dose is not given, but a tablespoonful every four hours is suggested. The dejecta soon lose their fetid odor, after the administration of this, and patients seem to improve rapidly.—*St. Louis Med. and Surg. Journal*, Jan., 1889.

Oleate of Zinc in Gynecology.—This substance fulfils several indications. It is caustic or rather astringent; but to insure its antiseptic action, Haslam recommends its mixture with iodoform, either in equal parts or in the proportion of one part of zinc to two of iodoform. The indications for its use are in cancerous ulceration of the neck, of which it diminishes the pain, discharge and offensive odor: in endometritis, to lessen the hyperthermic congestion. The methods of local application he prefers are either insufflation or application by tampon. Then, according to the author, its therapeutic value is much greater than that of bismuth, alum or the oxide of zinc. It adds to the uses of iodoform the advantage of being an astringent. There is in this substance a topical application, without doubt, worthy of trial in those cases where caustics are too generally used.—*Gazette de Gyn.; Medical Times*, Jan., 1, 1889.

The Medical Age.

Vol. VII. DETROIT, FEBRUARY 11, 1889. No. 3.

Original Articles.

INTUBATION AS COMPARED WITH TRACHEOTOMY FOR THE RELIEF OF DIPHTHERITIC LARYNGITIS.*

BY E. FLETCHER INGALS, M.D., CHICAGO, ILL.

I have been asked to speak upon the subject of intubation as compared with tracheotomy for the relief of diphtheritic laryngitis. I have recently found in looking over the literature that O'Dwyer's method has steadily gained ground with the profession in this country during the last year. Numerous papers have appeared showing that many physicians are adopting the method, and I think we may say without hesitation that it has reached a point where it may be termed a recognized procedure. In Europe the status of intubation is now about the same that it was in this country two years ago, but the reasons for this do not seem to be found either in the operation or in its results. Many experiments have been made with a view to improving this operation, but so far as I can learn the majority of operators have concluded that O'Dwyer's methods and instruments have not been improved.

There appeared, during the past year, a short but interesting article by DR. JAMES RICH, of London, on "Naso-Pharyngeal Intubation," in which he recommends the passing of a catheter through the nostril and nares into the larynx and retaining it in that position so long as necessary for respiration. He recommends, at the same time, the passing of a small œsophageal tube through the other nostril into the stomach for the purpose of feeding the patient. He had tried the method on four cases. It worked very satisfactorily for a few days, but unfortunately none of his cases recovered. This is not new, but it is of interest as showing the efforts being made to improve the operation.

The operation of intubation, as we understand it, or O'Dwyer's method, seems to be especially adapted to those cases which cannot be well cared for by nurses or physicians. This is exactly contrary to the suggestion of some foreign physicians, who urge as one of the greatest objections to this measure that the physician or a nurse capable of introducing the tube must be constantly in attendance. The experience of physicians in this country indicates that the laryngeal tube does not require as much attention as the tracheotomy tube, and that when expelled by cough there is nearly always ample time to summon the physician to reintroduce it.

Some one has specially recommended intubation in cases which occur with epidemics of measles as in these cases tracheotomy is seldom or never successful. It is in these cases particularly that considerable ulceration of the larynx or the trachea has been set up by the tube and intubation has not proven very efficacious.

I think it is well established that intubation is to be preferred to tracheotomy in very young children. It has also been recommended for adults, whom it has been stated never recover when tracheotomized for diphtheria. I cannot vouch for the correctness of this statement. One of the most prominent dangers of this operation is that of crowding membrane down before the tube and thus preventing respiration. However, this is not a very frequent accident. O'DWYER says that out of 200 cases he has only had the accident occur twice, and in these two cases, on withdrawal of the tube, the membrane was immediately coughed up. This has been the experience of some others. But in some cases the membrane will not be coughed up. In such a case I believe we should do tracheotomy immediately. In this I am not in accord with my friend DR. WAXHAM, who recommends trying to remove the false membrane with forceps. The length of time the tube may remain in the larynx should be considered when comparing this operation with tracheotomy, as it has been thought by some that the laryngeal tube could not be left long enough to accomplish the results desired. There is no difficulty from this source, as it has been found that the tube may be left as long as necessary, without causing complications, excepting those cases complicating measles, in which limited ulceration is liable to occur. The tube will generally remain from three to five or six days, but it is often coughed out the third or fourth day, and in many instances it is not necessary to return it, but in others it must be reintroduced and worn until the fifth or sixth day before it can be finally removed, and a few will have to wear it even longer.

*Read before the Chicago Medical Society at its January meeting and reported for the MEDICAL AGE.

It has been urged against intubation that particles of food find their way into the trachea and then into the lungs, causing pneumonia by aspiration, or *schluck pneumonie*. I think it a common belief with the profession that this is the usual course of pneumonia after intubation. I have held this view myself, and still hold it with reference to some cases, but it is a singular thing that in 116 autopsies recorded by DR. NORTHRUP, of New York, not a particle of food could be found in any portion of the respiratory tract. This would seem to prove the danger of pneumonia by aspiration, which has been much over-estimated. The risk of tubes slipping into the trachea has been urged against intubation, and I think it a danger that has been much under-estimated by the profession. Several instances in which this accident has happened have been published. I know of some cases that have not been reported, and have no doubt that others have occurred. This danger can only be avoided by using a tube of proper size. Those who are in favor of tubes with small heads do not consider this danger of much importance, but I would urge upon you the necessity of using tubes of proper size with the large head recommended by O'DWYER. It was urged early in the history of intubation that the tubes were liable to become stopped up and might cause suffocation before they could be removed. This accident is rare, but it may occur slowly by drying of the secretions or suddenly by loosened membrane. One case is reported in which a child vomited and portions of the contents of the stomach were drawn into the tube so that the patient would have suffocated if the physician had not been present. If the tube becomes occluded slowly the gradually increasing dyspnœa will attract the nurse's attention so that the physician may be called to remove it, but if it becomes stopped quickly the only chance for the patient is in coughing it out, therefore a tube which does not fit tightly should be used. Until recently we all believed that a child three or four years of age could not breath through a tube less than one-fourth of an inch in diameter, but we have found that this impression was erroneous, and that they may get sufficient air through an opening not more than one-third of this size. It is claimed by O'DWYER that small openings are better than large ones, because patients wearing such tubes can cough more forcibly and expectorate more readily.

A tube which will slip into the larynx without much force, should be used in preference to one which has to be crowded into the glottis.

It is especially important that the physician should remember that the tube merely allows the entrance of air and has nothing whatever to do in curing the patient. I believe that in many instances the physician gives up his work as soon as the operation has been done, and does not continue proper medication. During the past year the discovery of the new method of feeding, which was presented to this Society by DR. CASSELBERRY—and which I think he says was suggested by DR. CARY—has done very much to remove from intubation one of its most prominent objections. Before this method of administering fluid was discovered, it was necessary either to feed the child solids or soft solids, or to nourish it by enemas, and to withhold fluids. By this method we find that the child placed upon its back with the head low can readily swallow fluids without the danger of their running into the trachea and causing cough, and possibly pneumonia. I believe that with the adoption of this method of feeding the operation will soon become much more general than it now is, and as it becomes more general I think we will find that the results are better than they have been.

In the spring of 1887, I gathered together the reports of 514 cases of intubation in which the percentage of recoveries was 26.07. DR. WAXHAM gathered together, for the International Medical Congress, in the fall of the same year the records of 1072 cases, with a percentage of recoveries of 26.77, showing in that short space of time a considerable improvement in the percentage of recoveries. DR. O'DWYER reported a series of 100 cases with a percentage of 27 recoveries. And the latest written report from DR. WAXHAM is 169 cases with 29 per cent. of recoveries.

The percentage of recoveries from tracheotomy varies according to different reports; where large numbers have been collected it is from 26.25 to 28, thus showing that the percentage from the two operations is essentially the same. There are instances in which the percentage of recoveries from tracheotomy has been much less, as there are those in which the percentage of recoveries from intubation has been equally unfavorable, but there are others in which results have been much better. Some operators have had nearly 50 per cent. of their cases recover after tracheotomy, but the most comprehensive statistics place the recoveries from this operation fairly at from 26.25 to 28 per cent. and the largest collection of cases of intubation place its successes at 26.77 per cent.

I do not believe intubation adapted for all cases, but I do believe it should be used in preference to tracheotomy in nearly every case in the beginning. If it does not relieve the dyspnœa, tracheotomy should be resorted to. Of course, intubation should not be used where the obstruction to respiration is in the fauces instead of the larynx, as occasionally happens.

I want to say one word with reference to instructing the community how to prevent diphtheria. I believe it is contagious, although there are many cases in which it does not seem to be so I firmly believe that a great ma-

jority, perhaps more than half, the cases of diphtheria are caused by the negligence of parents or friends about keeping the house properly warmed. A majority of the cases occur in mild weather, when it is a little too cold to be without fire and a little too warm with it; as a result many houses will be found at about 65° F., and we will find the little ones running about, in and out of doors, dressed in their summer clothing. They necessarily take cold, they contract sore throats, and with or without the bacillus as a cause diphtheria is developed; whereas, if they were properly clothed and the house was kept properly warmed they would not have the disease.

I think the local treatment is not always as important as is thought by some physicians. It is well enough if it can be done without getting into a quarrel with the child.

I recollect very well that Dr. Dyas told me a few years ago of this experience with the local treatment of diphtheria. A child had the disease; the doctor believed in local treatment, and the father said we will apply it. The child died in the struggle, and I understood the doctor that he has since given up local treatment unless the child accepts it willingly. I believe that the tincture of the chloride of iron is one of our best internal remedies, and it may be given so frequently that a good local application is made every half hour or less frequently without resort to swabs, brushes or sprays.

In regard to fatal cases in which both intubation and tracheotomy have been performed, I am asked whether the result is charged to tracheotomy or intubation. I have no doubt they are charged to intubation by the tracheotomists and to tracheotomy by the intubationists.

Professor Tirsch, of Leipzig, has performed intubation 32 times with only three recoveries. In 14 of these cases he subsequently did tracheotomy, but the children died, and therefore we are told he abandoned intubation because the children died in spite of tracheotomy. Would it not have been just as reason to abandon tracheotomy?

THE REMOTE EFFECTS OF GONORRHŒA—PERINEAL SECTION—AMPUTATION OF THE TESTICLE—COLD ABSCESS.*

BY ALBERT B. STRONG, M. D.†

Gentlemen: The first patient I show you to-day is one suffering from the remote effects of gonorrhœa. The man is 28 years of age; a clerk by occupation; family history good. Ten years ago he first contracted gonorrhœa, which in a short time was completely cured. Since then he has had the disease twice, the last time being about three years ago, and he thought he had recovered from that attack also. About the first of last September he contracted a severe cold, and for the first time had difficulty in passing his water. A few days later an abscess formed in the scrotum and perineum; both were opened and discharged pus and urine. On the 17th of September he entered the Hospital. On admission he was in a typhoid condition, having a low form of fever and some diarrhœa. No urine came through the natural passage, but constantly dribbled away through the openings already mentioned. The scrotum was enormously swollen; an abscess existed in the right groin and in the walls of the abdomen at the root of the penis; these were all opened and drained, erysipelas supervening. He was transferred to the ward for such cases. In a month's time he was re-admitted to the surgical service. The parts were still swollen and indurated. Hot fomentations and saline cathartics were used for the next two weeks. The urethra was of normal calibre to the middle of the penile portion. Many trials on different days and under anæsthesia were made to pass a filiform bougie into the bladder. We succeeded once after a prolonged effort and tied the instrument in position. During the night the patient pulled it out. Several days after this—namely, on the 2nd of November—patient was again placed under ether, and failing to get an instrument into the bladder perineal section was successfully made without a guide. In making the operation nothing like normal urethral tissue was seen in the perineum, the parts were so infiltrated with pus cavities. A large drainage tube was fastened into the bladder. In ten or twelve days drainage was perfect; the swelling and bogginess in the surrounding parts had greatly diminished. He was again anæsthetized and a filiform bougie passed through the penis from meatus to the wound in the perineum. With this as a guide Otis' urethrotome was forced through and the canal widely divulged. A very large rubber catheter was passed through the penis and wound in the perineum to the bladder. The perineal wound which was nicely granulating was closed with a few deep sutures. The perineal wound has now completely closed, and as you see he still wears a good sized rubber catheter which he has done for several weeks.

We bring him before you to-day for the purpose of anæsthetizing him and examining two small sinuses that are still present and ascertain if possible why they don't heal. We shall open these freely, and if they do not communicate with the urinary tract by packing them from

*A Clinical Lecture reported for the Medical Age

†Attending Surgeon to the Cook County Hospital, Chicago, Ill.

the bottom we expect to quickly cause them to granulate. One of these small openings you see to the left of the anus; passing a probe into it you notice the direction is downwards and to the left, the sinus being under the skin and about two inches long. Having opened this we find no evidence that it communicates with the rectum or urinary tract; we pack it with a small strip of iodoform gauze and confidently expect it will close quickly. The other sinus you observe is in front in the median line of the scrotum just below the penis. Passing a probe into this you notice it passes downwards and backwards, and the end of it is felt under the skin behind; we push it through, and having scraped out the tract, pass through it a drainage tube. The location of this tract is suspicious; it may communicate with the urethra. If this is so, the chances are that it will be some time before it closes in. The man's general health has greatly improved.

There are a few points aboutthe case that are of special interest. In the first place, it is well for you to remember that gonorrhœa is not the simple thing the average boy is taught to believe it to be. Gonorrhœa in its remote effects is responsible for more suffering and deaths than syphilis. This is brought about mainly through the results of a stricture that is so liable, sooner or later, to follow a gonorrhœa, no matter what the treatment may be. The stricture closes in so slowly and so gradually that the patient does not notice that it takes him much longer than formerly to void his urine, and that he has to use much force to get rid of it. Suddenly on exposure to cold he is taken with a stoppage of the water, with the result you see in this man, which is by no means an exceptional case.

This man will be a great sufferer for his folly all the rest of his days. It will be absolutely necessary for him to use a catheter at short intervals as long as he lives, otherwise the new urethral tract, through his perineum, which is made out of new tissue, not intended by nature for that purpose, will tend to close up again. We will let you know how he is at our next clinic.

INJURY OF THE RIGHT TESTICLE—AMPUTATION.

The next patient, J. F. K., 45 years of age, nearly six feet high, weight 175 lbs., drummer by occupation, was admitted to the hospital on the 5th of the present month. I shall amputate the right testicle for a diseased condition. While he is being anæsthetized, I will give you the principal points of his history, some of which are of much interest, and at present not fully understood. He states that he was always well up to two years ago, when in jumping from a railway train in a collision that occurred in going over a bay, he struck his testicle against a tie, fell into the ocean, swam around for half an hour, and was nearly frozen when he got out. He was confined to his bed several days with inflammation of the right testicle. Six weeks later he had trouble in urinating and first used a catheter to draw off his water. From that time to the present he has never made water except with the aid of a catheter. From the first his testicle has always been swollen and tender, at times more so than others. Six months ago he was confined to bed some weeks with the swollen groin. It finally suppurated and was opened, and has been discharging ever since.

The man never had gonorrhœa or syphilis. His family history is very good. His mother lived in good health to the age of 70. His father died at 67 of some acute disease. His grand-parents were all healthy. He has eight brothers and sisters, all living and perfectly healthy. One sister died at 33 of lung trouble, another at 16 of heart disease.

Examining the right testicle, you see that it is as large as your fist. To the touch it is rather dense and smooth. It presents none of the anatomical marks or feelings of a testicle. The epididymis, globus major or minor are not distinguishable in this mass. You notice there are two openings on the front of the testicle, through which a fungous-looking substance protrudes, which bleeds easily; a small amount of pus is also seen escaping. The neighboring lymphatic glands are moderately enlarged; they are neither red nor tender. No matter what the nature of this swelling may be, whether it is a simple inflammatory mass, a tubercular testicle, or malignant disease, the indication is to get rid of it at once. It is no longer a testicle; it is a source of irritation, and the man will be much better off without it. The microscope will probably determine its pathology.

We will now examine the rectum and bladder to ascertain, if possible, why the man has been unable to pass his water without the use of a catheter for nearly two years. You see we pass a No. 18 American sound into his bladder. This goes in easily and no blood follows its introduction. The finger in the rectum reveals a normal prostate and bladder wall. There is nothing here to account for this symptom. Everything seems to be normal. I am much inclined to think that this is a habit the patient has fallen into. It is a disease of the imagination rather than of the bladder. Acting on this theory we shall tell him to stop using his catheter, impress upon him the fact that he must pass his water unassisted.

To amputate this testicle, we commence our incision just below the external abdominal ring, cutting through the integument and dartos tissue, we go on each side of these fungoid openings, including them in an elliptical incision which goes into healthy tissue. These in-

cisions come together below and pass as a single cut to the bottom of the scrotum. The mass is quickly pealed out, torn rather than cut, the cord at the external ring is transfixed and tied in halves with silk, then the ends tieing each half are passed around the whole cord and tied again. The testicle is cut away with shears, a small drainage tube is placed in the bottom of the wound, and the parts brought together with interrupted silk sutures covered by an antiseptic dressing.

COLD ABSCESS IN THE UPPER PART OF SCARPA'S TRIANGLE.

The third case is that of a woman 42 years of age. You see she is very poorly nourished, of medium height, and weighs about 100 pounds. Her case is an exceedingly interesting one from a diagnostic point of view. I will give you her history. A few days ago she called at my office, walking, with the aid of a cane, a number of blocks to get there. The first question she asked me was: "Doctor, can you cure rheumatism?"

I learned that about ten years ago she had what she supposed to be an attack of inflammatory rheumatism of the right hip; at least, this was the diagnosis of the physician who attended her, and it may have been correct, although it could not have been a very severe case. She recovered entirely from that trouble and had been perfectly free from pain until five years ago, when she says the rheumatism returned in the hip, and she never has been entirely free from pain since then. During this time she never has been confined to bed; has been on her feet most of the time, walking generally without a cane, though sometimes using one. Change of weather has made no difference with her trouble. During the conversation she incidentally remarked that she had a bunch in the groin. She never, however, paid much attention to this, though it had existed for five years, since it never gave her any pain, nor was it sore to handle. As she was without means, I advised her to come to this hospital.

The dressing you have just seen removed from the upper portion of the thigh is the usual antiseptic one put on, if there is time, a few hours before an intended operation. Last evening the parts were shaved, scrubbed with soap and bichloride solution, iodoform gauze and bandage put on.

The part now to be operated upon is, to say the least, perfectly clean. Notice, in the first place, the position of the right leg, flexed somewhat on the body; the knee is ten or twelve inches from the table. When we push the knee down to the table, you notice how the small of the back arches forward, three or four inches. This is one of the characteristic symptoms of hip-joint disease. You observe, however, there is no bony anchylosis, for in fixing the pelvis we make all the motions of the joint, and find them perfect though limited in degree of range of motion. No grating or roughness of the joint is felt on motion. Next you notice the tumor at the upper portion of Scarpa's triangle, commencing just below Poupart's ligament and running downwards and inwards five inches. It is oval in shape and 2½ inches broad. The skin over it is normal in appearance. When we flex the thigh on the body it is not so apparent, and is quite soft and boggy to the feel. When we press the knee to the table it is very prominent and feels very hard, though slightly elastic. This change in position of the limb explains why the patient said that the "lump was sometimes flat and soft, at other times hard and full." Now, what can this lump be? Remember that it has existed constantly for five years, never has been painful, red or sore to handle. It was the size of a hen's egg when she first accidentally discovered it in washing her person. It has not grown any in two years. Let us see if we cannot arive at the diagnosis by exclusion. We might have several neoplasms resembling this in this particular anatomical region. It might be a femoral hernia, an aneurism of the femoral artery, or a solid tumor. It might be a psoas abscess, a collection of fluid in the bursa between the psoas and iliacus muscles and the capsule of the hip joint, or hip joint disease in a state of suppuration, or a cold abscess. We would hardly expect a hernia either of the gut, omentum, or anything else to exist constantly for so long a time without other symptoms of such a condition. It also lacks the symptoms of an aneurism, either true or dissecting. The element of time alone would also exclude this. When the limb is extended the bunch feels like a solid tumor. It is not always an easy thing to distinguish by the touch alone between a solid mass and one containing fluid, whose walls are distended to their utmost capacity. This tumor is evidently situated below the fascia lata, hence its hardness on extending the limb; hence also the apparent fluctuation we get when the limb is flexed. The exploring needle thrust into it reveals pus. We can, I think, exclude hip disease in this case in the stage of suppuration, for the patient would hardly be able to walk so well if this condition existed. The bursa over the hip joint so often communicates with it that I think we can safely exclude suppuration of this.

We will now explore this cavity by a short perpendicular incision over the most prominent part. You see there escapes a thick, white, cheesy-looking pus that looks like tubercular matter. Enlarging this incision freely above and below, we let out more than a pint of the same material. Washing out the

cavity, we find it to be lined by a thick pyogenic membrane. The roof of the cavity is the fascia lata, sartorious and rectus muscles; its floor the pectineus and adductor muscles. We curette the cavity; pass the dressing forceps into the most dependent part and work it through muscles and skin of the back of the thigh, draw through a large rubber drainage tube and pack the space with iodoform gauze; apply the customary dressing.

I forgot to mention that the patient's mother and mother's mother died of consumption.

NOTE ON PEPSIN IN DIPHTHERIA.

BY DR. A. C. WILKINS, OSKALOOSA, IOWA.

Patient, young man; 30 years of age. He was attacked with malignant form of diphtheria, engrafted upon an old catarrh.

The membrane covered the entire fauces was thick, ash colored, and leathery; it was completely dissolved or digested by P., D. & Co's pepsinum purum pulvis in twelve hours time.

The catalytic changes commenced almost immediately after the pepsin was applied, it being used in an insufflator.

I have used the same pepsin in a number of cases with equally good results.

I claim that by dissolving the membrane with pure powdered pepsin that reabsorption and contamination of the system, of the diphtheritic poison is prevented.

The pepsinum purum pulvis, on account of its higher digestive power, its solubility, its pasty and adhesive properties, when brought in contact with a moist or dampened surface, gives it an advantage over every other form or make of pepsin, for dissolving diphtheritic membrane. It may be blown through a tube or quill.

Correspondence.

PROFESSIONAL LYING.

EDITOR MEDICAL AGE:

Candor is certainly commendable, and confession is good for the soul. These qualities were so manifest in the recent article in the AGE, on "The Luxury of Professional Lying," by DR. E. B. WARD, that one attempting to reply is more disposed to pity than censure. In fact, I am inclined to doubt whether the gentleman was really in earnest, or merely jesting, when he wrote: "A doctor is morally bound to lie under certain circumstances." How a person can be "morally bound" to perform an immoral act doth not appear from any code of ethics—moral or medical—with which I am acquainted.

I can conceive of many circumstances—and what physician cannot?—which imperatively demand that the truth be carefully concealed. But concealing the truth and deliberately uttering an untruth are two essentially different things. The former I believe to be a physician's duty, in many instances, the latter, never.

I consider that we belong to an honorable profession, from which our patrons have a right to expect better things, when they consult us, than word-juggling and absolute colossal lying.

The physician who advocates such a course of professional conduct, or intimates that it is common and indispensable to success in medical practice, libels his confreres and degrades his calling.

Such a course tends to create distrust and, if persisted in, would destroy all confidence and become ruinous in its results.

I have not practiced medicine one-fifth of thirty years, nor have I practiced "professional lying" at all, nor yet have I schooled myself in "rolling a lie around my tongue until it comes out sweeter than the truth," as your correspondent advises. Still, I have been spared those baneful consequences which the writer depicts as sure to accompany truth-telling. I can recall but a single instance in which my patient left me because I told the "unvarnished truth," which she insisted upon having. On the other hand, I am confident that I have gained and retained patients by rendering an honest opinion consistent with existing facts. Moreover, I have been severely censured and lost cases by concealing the truth, which subsequent events revealed.

No doubt there is a great deal of prevarication and lying practiced among medical men, but, that it is professional, or honorable, or necessary, or advisable, I for one am unwilling to admit. Let him who will indulge in "The Luxury of Professional Lying," but let him not forget, at the same time, that the practice rests under human and divine condemnation, and may gain for him an unenviable reputation and a rueful reward.

W. FLAGLER, A.M., M.D.

IMLAY CITY, Jan. 10th, 1889.

GLYCERIN IN DYSPEPSIA.

TO THE EDITOR OF THE MEDICAL AGE:

Sir:—Allow me to invite the attention of the readers of the AGE to the value of glycerin in very many cases of dyspepsia.

For four years I have used glycerin in teaspoonful doses in nearly all cases of dyspepsia with almost uniform success. I order it taken, mixed in water or milk, with the meal, and direct the patient to take plenty of good, nutritious food. This last point I deem es-

pecially important, as I believe I have seen far more cases arise from under-feeding than from over-feeding. Acute cases of indigestion arise often from the latter cause, but the history of the chronic cases is a history of gradual diminution of food with rapidly increasing dyspepsia.

The only theory I have on the subject is that the glycerin acts by stimulating the stomach and by preventing fermentation till the weak stomach has time to digest the food. But I know my patients get well under its use in nineteen cases out of twenty.

Mary H., a very fleshy child, four years old, was taken with irritation of the stomach so pronounced that it would retain no food whatever. She had been in this condition a week, and was emaciating rapidly. Her father, whom I accidentally met, asked me if I could not send something to help her. I told him to get a bottle of glycerin at the store, and give her half a teaspoonful in a cup of milk, and let her have all she wished. The relief was immediate and entire.

Miss B., twenty-four years old, lately from Ohio, had been dyspeptic for years, suffering acutely after every meal, and often rejecting her food, so that she hardly dared eat anything. She had been put on the starvation treatment. She presented a familiar type of the disease. In April, 1888, she used four ounces of glycerin, and was well till August, when, some symptoms returning, she took as much more, and has had no return of the disease.

Other remedies, as pepsin, can be used in connection with it if deemed best.

I hope others will test this remedy and report on it in the AGE.

J. A. POLLARD, M. D.

NEHAWKA, NEB., Jan. 18, 1889.

A CASE FOR DIAGNOSIS.

Dear Editor:—May I present the following case for diagnosis and treatment to the readers of the MEDICAL AGE?

MRS. F., about 18 months ago, while riding in a wagon, was much shocked by a fright caused by a mule (one of the team) kicking at her little boy—the boy was hit but not hurt. The lady at once complained of a severe pain in her back, and could hardly get home. Last winter she got a fall on the sleet, since which time her symptoms have been worse. Appetite reasonably good all the time; digestion all right; bowels rather constipated part of the time; all secretions and excretions fairly open; conplains mostly of pain in left side of body and left extremities. Pain of neuralgic character, shooting, migrating and severe. Three tender spots in back much of the time—one at lower cervical, one at middle dorsal, and one upper lumbar region—at times very sensitive to touch; pressure on them causing pain to shoot to parts of body supplied with nerves from these regions.

For nearly ten months she has had no use of her lower extremities, and when they are moved has tonic spasms of either the flexor or extensor muscles, mostly of the flexor, and during these spasms pain will shoot from the legs to the body—both to the abdominal and thoracic portion—mostly to left side. During these ten months has had anasarca, part of the time general, but principally of feet and legs.

When I examined the case I said Spinal Anæmia. Put her on Hammond's treatment;

℞ Strychniæ sul., gr. 1.
Quinæ sul.,
Ferri pyrophos., ää ʒ j.
Acidi phos. dil.,
Syr. Zing., ää ʒ ij.

and counter-irritation.

If anything, the treatment aggravated symptoms. Hydrate of chloral, given at one time to procure sleep, made the pain worse.

Other physicians call the trouble neuralgia, some say rheumatism. She is now using a battery, and says she rests better. Any information will be thankfully received.

LYNN W. HENDERSHOTT, B. A., M. D.

MATERNAL IMPRESSIONS.

EDITOR OF THE MEDICAL AGE:

Dear Sir.—I saw in the 26th of December number of the MEDICAL AGE an article from DR. A. FORD, of Alton, Mich., in regard to maternal impressions. I was an unbeliever of the fact that the state of the mother's mind could so influence the fœtus as to mark it until the summer of 1887. I was treating a case of periostitis of the tibia, ulceration of the soft parts and sloughing. A vigilant mother in the first months of gestation nursed the case, dressed the ulcer (against my wishes, however,) and at the close of the scene an acephalus child was born. Instead of a cranium it topped out with a naevus in all appearances like the ulcer on the boy's leg. Male child, still-born, well developed every other way.

L. W. LE CRONE, M.D.

HEBRON, O

RESPIRATION IN UTERO.

The Therapeutic Gazette of January 15th, 1889, at p. 67, presents its readers with a selection from the Lancet of Dec. 14, 1888, reported by DR. J. E. BEEGENALL, a district physician of London, under the foregoing title, and claimed to be *a remarkable case.*

Now the history of the case as quoted in the Gazette should plainly show that there was

nothing at all remarkable in the outcome thereof.

Labor was progressing naturally, the membranes were ruptured, the liquor amnii had escaped, the cord prolapsed, hanging out of the vulva, the fœtal head being in the first position and lying very high and not crowding in the pelvic straits, the whole being in the most favorable position for the access of air to the fœtal nostrils; what more natural than that there should be some amount of respiration even while the fœtus virtually remained in utero?

This then proves nothing in regard to the general principles of the non-respiration of the fœtus in utero. It was simply an accident that under any other circumstances could not have happened.

T. B. N.

Plattsburgh, N. Y.

WHEN TO GIVE ERGOT.

EDITOR OF THE MEDICAL AGE:

We are taught in New York City, that ergot in any form, must not be given until the uterus is empty, and then administered for the purpose of stopping hemorrhage. Many physicians give the drug at all periods of labor, but in case of suits in law, they may have to pay damages. Experts here assert that ergot is a dangerous remedy, and the cause of many deaths.

LUIGI G. DOANE, M. D.

NEW YORK CITY, N. Y.

The Proper Time to Take Medicines.—According to the Medical Press and Circular, it is pretty well recognized that alkalies should be given before food, and the same rule holds good with respect to bitters. Iodides should also be given on an empty stomach, because, if given after food, they are decomposed by the acids, and form inert compounds with starch, etc. Acids, unless intended to strictly assist digestion by supplying a want, should be given between meals, when they can more readily be absorbed. Irritating drugs, such as corrosive sublimate, arsenic, on the coutrary, ought to be given after meals, except when small doses are given before meals, in order to obtain a local effect. We are, however, confronted with the difficulty that the sublimate forms an insoluble compound with albumen. All medicines, such as bismuth, for example, the local effect of which is desired, should be given on an empty stomach. Lastly, such substances as pepsin, cod-liver oil, malt extract, should be exhibited during or immediately after a meal, so as to be absorbed along with the food.

The Medical Age.

A SEMI-MONTHLY REVIEW OF MEDICINE.

B W. PALMER, A. M., M. D., Editor.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

DETROIT, MICH., FEB. 11, 1889.

Editorial.

A CARD.

The duties of the chair of Gynecology in the Michigan College of Medicine and Surgery, to which I was recently appointed by the Trustees of that institution; added to the cares of private practice, have made it quite impossible for me longer to edit the MEDICAL AGE. The publisher has, therefore, kindly released me from an unexpired contract and my connection with the journal ceased with the issue of 25th ultimo. I ask for my successor the cordial support and sympathy which it was my privilege to enjoy, and hope for the AGE its continuance in the large field of usefulness which it developed while I was its editor.

J. J. MULHERON.

PUBLISHER'S NOTICE.

With this issue, as above announced, the editorial management of the AGE will be changed, the growing importance of other occupations of its long time editor, DR. J. J. MULHERON, making it impracticable for him to continue to give to it the necessary time and attention.

The AGE owes its present popularity largely to the facile pen and quaint humor as well as to the sound professional judgment and acquirements of the editor who has for so long a time so skillfully guided its destinies.

That its readers and contemporaries who have so often quoted its witicisms will regret the severance of their pleasant association with its editor goes without saying.

DR. B. W. PALMER, who takes up the editorial management with this issue, brings with him a considerable experience in journal work, and hopes to maintain the cordial relations that have ever existed between the readers of the AGE and its editor.

A journal must be to a large extent what its contributors make it. The AGE offers an opportunity for the exchange of experience, and for the record of medical progress, which all its readers are earnestly invited to avail themselves of.

Being published twice a month, it is possible through it to secure more prompt publication of articles than in the current monthly journals, and few, if any, journals in the west have a larger circle of readers.

Its purpose is to be practically helpful to the busy practitioner by keeping him fully informed of the rapidly accumulating knowledge of new therapeutic agents and new methods of treatment, and it is hoped it will continue to fulfill this intent acceptably.

UNJUST PERSECUTION OF MEDICAL MEN—THE REMEDY.

In the Wayne Circuit Court last week was witnessed the termination of another vexatious malpractice suit and the utter discomfiture of the litigious patient, leaving the defending physician, DR. J. E. CLARK the irritating satisfaction of having defended himself successfully from a most outrageous attack upon his pocket and reputation. This, like almost all similar cases, was, as was demonstrated to the jury, a wanton, unscrupulous attempt to rob a physician of his money or reputation, or both. The attorney for the prosecution, on the assumption that the doctor's reputation would suffer by the attendant publicity, generously offered to settle the case (for a consideration), but the physician viewing the case not in the light of a mere business transaction, and being conscious of a duty fulfilled, preferred the vindication of a court of law with its attendant annoyance and expense, to a cheaper and easier surrender of professional honor.

The case was a fracture of the neck of the femur in a man of 60 years of age, who while drunk slipped on the pavement. The diagnosis was correct, treatment proper, and result union with two inches of shortening. The patient walked into court, briskly, two years after the accident, supported only by a light cane. The result was better than the average reports from large numbers of cases, and yet in spite of these facts, which were readily demonstrated at the court, our law is such that there is no redress for the physician who loses time, money and reputation clearing himself of the stigma which the public unfortunately attaches to the defendant in a malpractice suit.

The verdict, as in this case, may be "no cause for action," but upon the clientelle of the practitioner an impression will have been made, the effects of which will require years of successful effort to efface. As at present constituted, our laws too frequently favor this form of litigation, no matter how baseless the charge is proven upon which the physician is cited to appear. There is no provision for reimbursing him for his lost time and attorney fees. A physician is at the mercy of any unscrupulous and irresponsible patient who prefers a suit for malpractice to settling his bill. These straw plaintiffs have flourished like the proverbial green bay tree under existing laws, and seem to have no difficulty in obtaining the services of petifogging advocates who are willing to accept the meager possibilities of a 50 per cent. divvy in return for their services. The surgeon has as much right to protection from persecution by cranky, malicious patients as the reputable patient has from irresponsible and incompetent surgery. But as the law is, the physician alone suffers. What the medical practitioner of Michigan wants is not license to malpractice, but protection from blackmail and malicious persecution, and to obtain this protection the following additions to our laws should be insisted upon by the profession as a whole:

1. The plaintiff shall give security for costs.

2. Whenever a verdict of acquittal is rendered, the plaintiff shall pay all costs, with attorney fee.

3. It shall not be lawful for any attorney at law to bring or conduct any malpractice suit for a contingent fee or on any understanding expressed or implied, that he is to receive any portion or all of the damages recovered as compensation for his services.

If barratry was a crime in Michigan, as it is in some of the States, and cases could not be taken on speculation by legal quacks, one half the evil we now suffer would be removed, and we would not be at the expense of defending trivial cases that are worked up by shysters and are only possible through conspiracy or barratry.

Our own profession, we regret to say, too often forget the dignity of their calling and by innuendo, hint, and sometimes by actual suggestion cause, the instigation of these suits. The hateful suggestions of envy, the unkindly influence of opposing interests, and the petty jealousies of all sorts that spring up, like noisome weeds in the rotten soil, of grasping, avaricious spirits, frequently tend to produce litigation which honest candor, and a proper respect for professional ethics would most assuredly avert.

We believe the remedy for this unjust persecution of medical men lies almost as much with the profession as with the legislature, that a study and observation of the code of ethics which our predecessors have deduced from an ample experience and cultivated judgment and enlightened conscience, will, if duly observed, lead to the elevation of our calling in usefulness, dignity and respect, and to the personal advantage of every member of the profession.

J. R. C.

THE ETIOLOGY OF RHEUMATIC FEVER.

Not the least obsure of the prevalent diseases, and which is still treated empirically is acute rheumatism. Until its etiology is better known than at present its treatment must continue to be symptomatic and more or less irrational.

The present preponderance of opinion is in favor of regarding it as an infectious disease caused by a specific germ and this theory would certainly explain many of its phenomena and its amenability to antiseptic treatment as by the salicylates.

Some observations on the cause of acute rheumatism have recently been communicated by Professor Pel, of Amsterdam, which are reported in the British Med. Jour., and these tend to show the infectious character of this disease.

Professor Pel, in an article communicated to the Weekblad van het Nederlandsch Tijdschrift voor Geneeskunde, on Rheumatic Fever, or, as he calls it, Rheumatismus Articularis Acutus, shows that this affection is becoming more and more frequent. Thus the hospital registers show that, while the average number of cases of rheumatic fever treated in the wards from 1874 to 1879 was under 11, and about the same from 1880 to 1882, after that a rise occurred, the numbers for the next three years being 42, 43, and 44 respectively.

As to the etiology, though no specific germ of infection has as yet been definitely found, there is, as has been pointed out by many authors, abundant reason for suspecting the existence of such a germ, and for looking upon acute rheumatism as an infectious disease. For example, it is liable to occur in epidemics, which not uncommonly bear distinctive characters. The disease commences with a disturbance of the general health, accompanied by fever, the joint affections only declaring themselves subsequently; and it is frequently complicated by inflammations of the endocardium, pericardium, and other serous membranes, which of itself is presumptive of the infectious character of the disease, but confirmatory evidence of the discovery of a specific microorganism in the inflamed membranes is still required.

Much of the more recent literature of the subject points decidedly towards the disease having a specific origin. Various papers are cited by the author, including those of Edelfsen, Friedländer, Stecher, and Heubner. In the Amsterdam Hospital it is found that rheumatic fever often attacks patients in batches, and "rheumatism days" are spoken of, when this occurs in a marked degree. During April, May, and June, 1884, the cases were mild as regards the joint affection, but nine of them were complicated by affections of the serous membranes. All, however, were convalescent in three weeks. In August and September, 1884, the cases were slight, but there were repeated relapses of the joint affection, also anæmia and functional cardiac murmurs. In February and March, 1884, the cases were complicated by pleurisy, pericarditis, endocarditis, etc.

In August, 1885, an instructive case occurred of a female patient, aged 43, who, after recovering from enteric fever, followed by double pneumonia, while able to walk about was suddenly seized with symptoms of acute rheumatism, and passed through a somewhat sharp attack. She had never had any rheumatic symptoms previously, and while in hospital was removed from damp, etc. She, however, occupied a bed between two other patients with rheumatic fever, and her attack coincided in point of time with a relapse in five other rheumatic fever patients.

Other cases pointing to direct infection are quoted from Salisbury, Pocock, Schäfer, and Thoresen. Professor Pel then proceeds to discuss the relationship of rheumatic fever to climatic conditions and to malaria. He is inclined to agree with Bertholon in regard to there being a distinct connection between malaria and rheumatism, the years when malaria is prevalent in Amsterdam being remarkably free from rheumatism. He gives a curve showing this in a most striking manner. Thus the patients suffering from the two diseases were as follows: 1875, R., 22; M., 11; 1877, R., 7; M., 31; 1879, R., 11; M., 41; 1882, R., 10; M., 9; 1884, R., 43; M., 9.

The papers of Gabbet and Edelfsen, on the relation of acute rheumatism to temperature and rainfall, are quoted by the author, who states that on comparing the hospital registers with official meteorological tables, it was found that the so-called rheumatism days did not occur during a lengthened period of excessively rainy weather, that the actual temperature had apparently less influence than the extent of the diurnal variation, also that some five to ten days previously to a "rheumatism day" a great quantity of rain had generally fallen.

There is evidently, therefore, some connection between the amount of rainfall and rheumatism, and the author's observations point apparently to the development of the specific *materies morbi*, whatever it may be, in the earth by moisture and its subsequent dissemination during dry weather.

ANTISEPTIC TREATMENT OF PHTHISIS.

If the theory that phthisis is dependent for its development on the presence of a specific bacillus is true and it is now very positively claimed by bacteriologists and admitted by many, the antiseptic treatment of phthisis is

likely to play a most important rôle in the future therapeutics of this disease.

The recent successes of Dr. Austin Flint and Beverly Robinson, of New York, in the employment of creasote in phthisis, confirming as they do the results obtained by foreign observers, are likely to lead to a very general trial of the antiseptic method in this country. With this probability in view we commend to experimenters the following words from the London Lancet which caution against too hasty generalizations, and the tenor of which is to make haste slowly.

The time is approaching when the profession at large may reasonably look to the leaders of thought and investigation amongst us for some authoritative teaching on the province and utility of antiseptic treatment in phthisis. It will hardly be denied that the question is at present in a most unsatisfactory state of confusion, or that our professional credit and the welfare of sufferers alike render it imperative that the brilliant hopes aroused by the reports of continental investigators should be subjected to the most searching tests at our command.

From time to time rumors more or less authoritative reach us from France and Germany of the wonderful results obtained in the treatment of phthisis by antiseptic measures: but the precise, detailed, and corroborated evidence so necessary to secure general acceptance is still wanting, and the attitude of the profession on this side of the Channel is for the most part one of reserve, if not of scepticism or active hostility.

It is much to be desired that the general practitioner, who has little time for original investigation or the sifting of complicated and sometimes contradictory reports, should be able to satisfy himself whether in employing antiseptics in phthisis he is using a potent and hopeful remedy, or merely following a Will-o'-the-wisp destined to lead his patients and himself only to disappointment. Of the value of antiseptic measures in surgery and gynæcology there is no room for doubt, but their application to pulmonary disease raises such novel issues that the unquestioned success of Listerism hardly does more than excite a presumption that similar measures may possibly find a field of usefulness in thoracic affections. Whether such a field has been found and admits of being successfully worked is still *sub judice*, and we are anxious to press as earnestly as we can for its early decision.

Antisepsis in phthisis has taken three forms: first, the administration of carbolic acid, thymol, creasote, turpentine, or other drugs by inhalation; secondly, the application of some of these remedies by hypodermic injection; thirdly, the employment of rectal injections of sulphuretted hydrogen and carbonic acid gas, according to the method of Bergeon, of Lyons, to whom this line of treatment owes its origin.

The first method, that of inhalation, is in wide use in this country, both in hospitals and in private practice, and general experience seems to show that in some cases it possesses a certain value. It undoubtedly corrects the viscidity and fetor sometimes present in the expectoration, and in so doing conduces to the patient's comfort and improves his constitutional state. It also checks the multiplication of bacilli which goes on so rapidly in putrefying vomicæ, and thus may tend to reduce the chances of secondary infection. But we are still without definite evidence of the power of antiseptic inhalations to limit the extension of tubercular disease in its incipient stage—the time, above all, in which their value might be expected to prove most signal and permanent.

The second method—that of hypodermic injection—has not, we think, been extensively practised in this country; but the reports of some French experimenters regarding it are extraordinarily favorable. Carbolic acid has been administered for long periods in steadily increasing doses, with an alleged arrest and cure of the disease in a large percentage of cases. For our own part, we are unable unreservedly to accept these results until thoroughly corroborated, but the question is one that readily admits of being tested, and of which a speedy and final solution may be reasonably expected.

The third method—the gaseous injections per rectum advocated by Bergeon—was announced with much confidence, and its success in the hands of continental observers would seem to be considerable. Unfortunately, experience has so far failed definitely to substantiate its claims.

In estimating the value of antiseptic measures in phthisis we must be always on our guard against one obvious source of fallacy. In all hospitals for consumption where the admission of patients is prudently regulated, a marked preliminary improvement is usually to be observed in the majority of cases, and that under the most diverse methods of treatment. The improved diet and better air which the poorer classes obtain by admission to a hospital, and the substitution of cod-liver oil, arsenic, or hypophosphites for deleterious nostrums and cough mixtures, rarely fail to produce an amelioration of all the more distressing symptoms. Now, if in addition to the above measures antiseptics be employed, the latter are apt to get the chief or sole credit, and hence to obscure the question at issue. The value of antiseptics can only be established by excluding this source of fallacy, and by a careful comparison of results. The time and pains expended by observers in the elucidation of this question will be amply rewarded if their result be a

clear and practical guidance upon one of the greatest therapeutic problems of the time.

THE CLASSIFICATION OF THE DYSPEPSIAS.

As the knowledge of digestive ferments has been increased and their quality improved by the investigations and experiments of manufacturers a better understanding of their application is being developed by physiologists and clinicians.

In order to use digestive ferments intelligently and effectively a correct diagnosis of the departures from the normal condition of the digestive processes is required. A step in this direction is the classification of dyspepsias which we learn from the N. Y. Med. Record has been ably done by DR. JULIUS GLAX in a recent work (Neber die Neurosen des Magen-Klinische Zeit. und Streitfragen, Band 1, Heft 6) who has presented systematically the knowledge so far accumulated regarding many of these different forms.

The term "dyspepsia" is rapidly being relegated to the realm of old-fashioned and mystical pathology. It can no longer be used by exact clinicians, except when carefully qualified. To be sure, there are many cases yet in which the particular form of functional stomach disorder from which a patient suffers cannot always be diagnosticated. But such cases are diminishing in number, and the physician who makes a diagnosis of dyspepsia, without further inquiry, must be put down as a loose and careless observer.

There is little excuse, in failing to recognize decided gastric catarrh, or well-marked dilatation. The determination of the functional disturbances is constantly being made easier.

Under neuroses of the stomach may be included nearly every gastric disorder of a functional kind.

His classification will interest our readers, in showing, if nothing more, the refinement in symptomatological analysis which recent observations have made possible. The classification is as follows:

Group 1. Motor neuroses. (*a*) Hyperkinesis, or irritative forms: (1) Peristaltic and antiperistaltic mobility of the stomach; (2) morbid eructations, belching, etc.; (3) nervous vomiting; (4) cramp of the stomach—general—of cardia, and of pylorus. (*b*) Hypokinesis, or depressive forms: (1) Atony of the stomach; (2) insufficiency of cardia, regurgitation, merycism; (3) insufficiency of the pylorus.

Group 2. Sensory neuroses: (1) Cardialgia, central, reflex; (2) changes in the physiological sensations of hunger and satiety—anorexia nervosa, or gastric hysteria, bulimia, parorexia, or perverted sensations of hunger.

Group 3. The secretion neuroses: (1) Irritative forms, hyperacidity, nervous gastroxynsis; (2) depressive forms, deficient secretion.

Besides the above, there occur, no doubt, vaso-motor disturbances, but their independent existence can hardly be recognized. It happens, practically, that many of the above disorders may be united, and that some of them may complicate inflammatory or other organic changes. At the same time, many typical examples of the special forms enumerated are on record and are not difficult to recognize.

ESCHSCHOLTZIA CALIFORNICA—A SUBSTITUTE FOR MORPHINE.

The Paris correspondent of the N. Y. Medical Journal reports in a recent number that M. BARDET and M. ADRIAN have examined the American plant called *Eschscholtzia Californica*, and they find that it really contains morphine, and this is the first time that a plant of any other order than the *Papaveraceæ* has been found to contain that alkaloid.

It contains also another base, together with a glucoside, which may be very important when their characters have been studied. In any case the drug should be a valuable aid in replacing the opium alkaloid when necessary.

We are also in receipt of the following excerpt from a thesis by DR. TERZAKARIANTZ of the Paris Faculty, "On the Physiological and Therapeutical Study of Eschscholtzia Californica," which is confirmatory of BARDET'S and ADRIAN'S experience.

"After explaining the processes employed for the manufacture of the alcoholic and aqueous extract of this drug, and quoting a number of experiments made with it in a physiological direction at the Cochin Hospital in the laboratory of M. DUJARDIN-BEAUMETZ, the author sums up as follows:

Eschscholtzia Californica is a soporific of great value, while its use is unattended by untoward effects. It is an analgesic of much worth in certain cases. It does not present the inconveniences of morphine, while its admisistration is very simple. The dose administered has been from 2.50 to 10.0 gram per day, and it can be given either as a decoction, a syrup or in the shape of pills:

The following formulæ are given:

℞ Alcoholic ext. of E. Calif., 2.50 to 10.0.
Rum, 30.00.
Syrup acacia, 30.00.

℞ Alcoholic ext. E. Calif., 250.00.
Simple syrup, 2000.00.

One to four tablespoonfuls per day.

PILLS.

℞ Alcoholic or aqueous solid extract of E. Californica, 20.00.
Excipient, q. s. ad., 40 pills.

Dose, 5 to 15 pills per day.

The effect of the medicine persists quite a long time after discontinuance of the employment.

Considering the important fact that these investigators have proven that there is morphine in this drug, it deserves a further investigation at the hands of American physicians. We understand that Messrs. Parke, Davis & Co. are prepared to place gratuitously at the disposal of physicians small quantities of the fluid extract for trial.

A PLEA FOR SPECIALISM.

CANON ISAAC TAYLOR, in an address on "Literature and Culture," has given some advice which, with some obvious modifications, doctors and medical students would do well to lay to heart. He said: "It is impossible for any one man to know everything, now that the domain of knowledge has been so vastly extended. In these days, to be distinguished a man must be a specialist—he must devote himself to some department of knowledge. As OWEN MEREDITH puts it, 'the day has gone by when one man can in all things be all.' It was said of WHEWELL, that while science was his forte, omniscience was his foible. Because he knew so much, he thought he could know everything; and so, if you strive after universal knowledge, what you will attain will not be science, but sciolism. Strive after universal knowledge, and you will become a universal smatterer.

On the other hand, the mere specialist tends to become a narrow pedant. How shall we avoid these opposite dangers—sciolism and pedantry? I think the best rule for a young man to set before him in his studies is, to resolve to know something of everything, and everything of something. To know everything of something is to choose some one branch of science for your speciality, and to learn everything that can be learned about it: this will give you accuracy and precision. To become 'an authority,' as it is called, on some one subject, however small, is better than nothing. Still better is it to take some department of medicine and master it thoroughly. But this is not enough. You will thus learn to be accurate, exhaustive; but you will be narrow. You must not only know everything of something; but, to gain breadth of mind, you should also resolve to know something of everything.

Strive to take a general interest in every department of human knowledge. Strive to know enough of every science to enable you to listen intelligently to any great specialist you may chance to meet, and to read with profit any great epoch-making book that may appear. Such knowledge cannot be deep; but such an imperfect knowledge adds immensely to the intellectual pleasures within your reach, and will constantly throw light on that one branch of knowledge which you have specially made your own."

WHY CERTAIN PILLS SHOULD NOT BE PRESCRIBED.

We are glad to see a journal manifest clearly the courage of its convictions in declaring the impropriety of physicians countenancing medicinal compounds the nature of which is maintained as a trade secret. There is the true ethical ring about the following editorial why certain pills should not be prescribed, which we reproduce from the *Buffalo Medical Press*, Jan. 1889, p. 27.

"This city has lately been thoroughly canvassed by an agent of a manufacturer of certain pills. The advantage of these pills over others lies, it is claimed, in the fact that they are, essentially, powdered drugs, surrounded by a thin and readily soluble coating of sugar.

Let it be granted that these claims are true, why should reputable physicians refuse to prescribe them? Because the process by which they are made is kept *secret*. Secrecy in medicine, whether as to the character and constituents of a prescription or as to the mode of preparation, is a thing to be avoided in every possible manner. The truly scientific man who has the interest of the profession, which is the welfare of humanity, at heart, if he has discovered anything that will advance that interest, publishes it immediately to his brethren that they too may have the benefit of his discovery, whether that discovery be in the nature of a remedy itself or of a mode of preparation of a remedy.

It is a mean, selfish spirit, smacking of quackery, that will keep such a discovery secret for the purpose of making money; and the sooner such a spirit is stamped out of the profession, the better it will be for the profession itself and for humanity at large.

The development of this commercial spirit in the profession can be traced directly to the low standard, mental and moral, required by the medical schools of this country for admission to the ranks of a profession, which should require of its members the highest possible education in all directions.

The broad-minded and honorable thing for the manufacturers of the Upjohn or of any other pills to do, is to publish their mode of manufacture so that, if proved worthy, it can be incorporated in the next Pharmacopœia. If then the company showed that it manufactured its pills better than other makers, the physician would be justified in specifying the name in his prescriptions, just as now, on account of their superior make, he specifies *Squibb's* chloroform, *Wyeth's* Fl. Ext. of Ergot, *Parke, Davis & Co's* Fl. Ext. Cascara Sagrada, etc.

IS SACCHARIN INNOCUOUS?

Many conflicting reports have been published as to the effects of saccharin, and in view of its application in the treatment of diseases in which sugar is contraindicated it is much to be

desired that its toxicity or freedom from it be determined.

A French Medical Commission appointed to enquire into this subject reported that saccharin was not a true food and that as an antiseptic it retarded the action of the digestive functions.

As opposed to this view the *British Med. Journal* quotes the experiments of DRS. STEVENSON and WOOLDRIDGE which tend to show that saccharin is innocuous when taken in quantities largely exceeding what would be taken in an ordinary dietary. As a result of actual experiment, they have determined that saccharin, when present in any practicable quantity, has no retarding influence on the peptic digestion of fibrin, although the presence of 0.25 per cent. slows the process decidedly, and 1 per cent. greatly retards it. They further found that "the diastatic solution of starch" was not hindered by the presence of as much as 2 per cent. of saccharin.

The authors do not seem to have performed any experiments with the pancreatic ferment, but, not satisfied with those on the extra corporeal action of saccharin on peptic digestion, they made comparative and concurrent experiments on two dogs, and found that the swallowing by one of them of one gramme of saccharin with a single meat meal did not in the least interfere with the gastric digestive process. Altogether we consider that, up to the present time, the balance of evidence is in favor of the supposition that saccharin is generally innocuous. But it must be remembered that saccharin is comparatively new as a therapeutic agent, and it is quite possible that in some conditions of disease a patient may not be able to tolerate it. If such be the fact, in process of time these cases will be duly recorded and classified, and thus experience will inform us as to when the use of saccharin is contra-indicated.

CARE OF THE HYPODERMIC SYRINGE.

Hypodermic medication has become so generally resorted to that the condition of the syringe is a most important question to both physician and patient. It is not our purpose, even were it possible, to point out the best form of hypodermic syringe in use, though doubtless some are better than others, but to remind physicians of the increased facility that comes from keeping the syringe in perfect order, and the necessity of disinfection and cleanliness if abscesses, local irritation or blood-poisoning are to be guarded against.

DR. W. F. ARNOLD, in the Southern Practitioner, makes some timely comments on this subject. He insists, first of all, on the necessity of having fresh solutions of the medicament used, and we might add to his suggestion the advisability of boiling the water before making the solution.

For oiling the packing of the syringe DR. ARNOLD thinks glycerin the best agent, its hygroscopic properties preventing shrinking. He thinks the shape of the point rather than its size causes pain in the use of the needle, and commends points having a perfectly flat slope of about thirty degrees to the axis of the needle.

After use a syringe should always have a syringeful of water passed throgh it, and we would suggest a disinfectant solution as of mercuric chloride, 1–4000, which may be easily prepared from tablets made for this purpose. The needle should then be passed through a flame, and if practicable, as in the physician's office, through the flame of an alcohol lamp, and a silver wire introduced through the tube of the needle.

These details will no doubt seem superfluous to some, but the annoyance from a syringe out of order is not the least of the petty vexations of the physician. No care can be considered too great to guard against infection, and we cannot but believe that infection is not infrequently carried by unclean syringes. Eternal vigilance in minutæ is the price of freedom from accidents in medical practice. The successful practitioner will be found to be most often he who takes elaborate care of apparently trival details.

A STUDY OF AMYL NITRITE.

An investigation of amyl nitrite has been recently carried on by the Research Laboratory of the British Pharmaceutical Association, which has led to some important discoveries which are reported in the Pharm. Jour. and Trans., Dec. 22, 1888.

It appears that the amyl nitrite employed in medicine, and answering the pharmacopœial tests, has been discovered to be a mixture of at least three bodies — iso-butyl nitrite, alpha-amyl nitrite and beta-amyl nitrite, and that iso-butyl nitrite has a more powerful action than the amyl nitrite in reducing blood pressure, in accelerating the pulse, and in quickening respiration.

The physiological part of this investigation, which is being carried on by T. LAUDER BRUNTON, is not yet complete, but it is believed that amyl nitrite as previously used has owed its efficacy largely to the percentage of iso-butyl nitrite it contained. It is probable, therefore, that we shall have in time a more reliable and certain preparation of the nitrites for use in angina pectoris and in conditions in which the respiration is desired to be rapidly increased.

It is auspicious of progress in medicine when pharmacologists and physiologists and clinicians unite in the study of the nature and action of drugs, and this research should be heartily commended.

Notes and News.

Absolute Signs of Death.—The London Lancet gives an account of an able paper read at a meeting of the Medical Society of London, by Dr. B. W. Richardson, on the "Absolute Signs of Death." He gave first the circumstances under which the inquiry was made as to whether life was actually extinct, then the methods for determining the absolute proofs of death, and finally a summary of efficient practical details. Under the first head Dr. Richardson specified, (*a*) changes of color of the dead body; (*b*) retention of warmth; (*c*) retention of life-like expression after death; (*d*) prolonged preservation of the body from putrefactive decomposition; (*e*) suspension of the ordinary phenomena of vital action after some forms of induced narcotism; (*f*) the cataleptic state, idiopathic or traumatic. The various circumstances which might lead to a doubt as to absolute death were described in detail; then followed the actual proofs that had to be made in order to demonstrate satisfactorily that life was extinct. These were ten in number: 1, Respiratory failure; 2, cardiac failure; 3, reduction of the temperature below the natural standard; 4, the presence of rigor mortis and muscular collapse; 5, coagulation of blood in the veins; 6, the presence of putrefactive decomposition; 7, absence of a red color in semi-transparent parts under the influence of a powerful light, such as that from a magnesian lamp; 8, absence of muscular contraction under the stimulus of an electric or galvanic current; 9, the absence of a red blotch under the skin after the subcutaneous injection of ammonia; 10, absence of signs of rust on a bright steel needle after plunging it deep into the tissues.

The Doctor as a Civilizer.—The large part played by medical travelers in the most remote and uncivilized parts of the world in attracting the affection of savage populations, and leading them in the path of civilization, is not the least glorious page of medical history, and would afford material for an interesting research. MR. GEORGE CURZON, in his account this month of a *Visit to Bokhara the Noble*, gives a highly interesting sketch of DR. HEYFELDER, who was the chief of the medical staff in SKOBELEFF'S Turcoman campaign. "It would be hard to exaggerate the part which his manners and generosity have played in the pacification of this whilom haunt of fanaticism. As early as six in the morning people crowd into the Embassy to see him. Very often so childish is their faith that they do not ask for a prescription, but simply implore his touch. * * * * A fat old Bey, he told me, came to him one day and said: 'Can you make me better? I suffer from eating four dinners a day.' 'Certainly,' said the doctor, 'eat three.' Thereupon the old gentleman became very angry, and retorted, 'How can I eat less when I am called upon to entertain venerable foreigners?' I asked the doctor whether it was out of benevolence that he continued to reside at Bokhara. 'Yes,' he replied, 'and as a pioneer of civilization.'"

How to do Without a Urethra.—In a recent article in the Virginia Medical Monthly Dr. Hunter McGuire, in discussing treatment of enlarged prostrate, says that where the obstruction is great and fixed, micturition is frequent and difficult, perhaps impossible without the catheter, the introduction of the instrument grows more and more difficult, offensive residual urine is always present, and the general health suffers greatly, his experience has shown that relief is afforded as follows: Perform the ordinary supra-pubic operation for stone, pass into this opening a No. 10 or 12 gum catheter, and allow the edges of the wound to heal, but preserving a fistula for the permanent escape of the urine through the abdominal walls. Thus avoiding the straining and discomfort of endeavoring to pass the urine through the urethra that is more or less completely blocked by an enlarged gland.

If this be the only alternative for the patient with an enlarged prostate, we can re-echo the sentiments of our one-time professor of genito-urinary diseases: "Blessed be the man with a large urethra."

The Therapeutic Value of Music.—That music can be turned to profitable account from a therapeutic point of view is indisputable; there are lovers of music whose great recreation, amidst the toils and anxieties of a busy life, is to attend concerts at regular periodical intervals. It is not difficult, then, to understand that the solace and mind refreshment which they seek in health should, under favorable conditions, be attained with the same advantages when sickness supervenes. As COWPER, the poet, puts it: "There is in souls a sympathy with sounds; and as the mind is pitch'd, the ear is pleased with melting airs, or martial, brisk, or grave; some cord in unison with what we hear is touch'd within us, and the heart replies."

We are informed that an eminent New York specialist in nervous diseases is accustomed to familiarize himself with current plays and books, that he may recommend to his patients those which will have upon them the desired mental effect. He might with advantage add music to his extra therapeutical agencies. Drugs are not all of therapeutics.

The Medicinal Value of Color.—Color treatment has been suggested for various forms

of mental derangement—bright crimson surroundings for melancholia, soft blue for maniacal excitement, and so on. The report which has reached us leaves much to be desired from a scientific standpoint; meanwhile there is very little room for doubt that a prolonged period of darkness largely influences the mental attitude, and, by hope deferred, favors a general feeling of misanthropy. Pessimism flourishes in the autumnal and winter seasons, optimism in spring and summer, even though the statistics of deaths from suicide show an increase in bright weather. To restate a belief in the remedial value of color is merely to insist upon the therapeutic effect of change, since, in advising change of scene, brightness and interest are always the object sought. No one would recommend a course of fogs as an alternative for sunshine. In other words, stimulants, as a rule, are more valuable than depressants.

A Physicians' Protective Alliance.—Brooklyn Physicians have established a Physicians' Protective Alliance. Its aims are primarily to protect physicians from being defrauded by patients who can, but who will not pay just bills rendered them for medical aid. Any legal practitioner of medicine of Brooklyn may become a member of the Alliance by signing the Constitution and paying an initiation fee of $2 and a current annual dues, also $2. The officers of the Alliance are a president, vice-president, secretary, treasurer, and seven governors. The officers proper are members *ex-officio* of the Board of Governors, which thus consists of eleven members.

A list of delinquents with addresses, after it has been revised and approved by the Board of Governors, will be printed and a copy supplied for the private information and use of each member. It is the duty of the secretary to supply to members such information in regard to delinquents as he may have officially acquired, whenever it may be called for.

Poisoning with Sulphonal.—In the Deutsche Medizinal-Zeitung Dr. Bornemann, who has charge of an institution for the treatment of neurotic invalids, gives an account of the case of a physician, fifty three years old, a victim to the morphine habit, to whom sulphonal was given among various other hypnotics. On one occasion sixty grains were given shortly after nine o'clock in the evening, and thirty grains more an hour after midnight. Sleep did not follow promptly, but the patient shortly showed symptoms of muscular inco-ordination of a decided character. It took six days for the ataxia to subside entirely, and during a portion of that time there was great mental depression. The author infers that the action of sulphonal is not confined to the cerebral cortex, for in this case the ataxia was of central origin, inasmuch as the patient's condition was the same whether his eyes were open or closed. Certainly the case should serve as a reminder that the use of sulphonal is not wholly free from danger.

Carlyle on the Nobility of the Medical Profession.—"I have often said, what profession is there equal in true nobleness to medicine? He that can abolish pain and relieve his fellow mortal from sickness, he is indisputably the usefullest of men. Him savage and civilized will honor; he is in the right, be in the wrong who may. As a Lord Chancellor, under one's horsehair wig there must be misgivings; still more, as a Lord Primate, under one's cauliflower; but, if I could heal disease, I would say to all men and to angels '*en ecce*.'" Another living celebrity has said: "When we regard the rapid and marked progress which our art and science has made during little more than half a century, I feel that we are fully justified in believing that progress in the future will be even more remarkable, and that, with materials for investigation in abundance, with willing and able workers, there can be neither fear nor doubt for the continued advance of the healing art."

We are What we Eat.—Dr. E. A. Wood, in a recent address on dietetics, says: "Food and drinks, feeding and drinking, would seem to exert a wonderful influence over the habits of thought, the customs and manners of races of men, and their diseases also. By searching we might find that the egotism, conservatism and tenaciousness of the Englishman are as much the results of his beef and ale as is his gout; that the sparkling bonhomie of the Frenchman comes from his dainty cuisine and bubbling champagne, as does also his mercurial disposition and his passionate life; that the maccaroni and fortified wines bestow song and art on the Italian, as does beer and sauerkraut stamp solidity and patriotism on the German. America, ever able to give the world a lesson, contributes rush and dyspepsia as the product of hog and whisky."

Counterfeiting Mellin's Food.—A druggist was arrested in Philadelphia last week, at the instance of the Doliber-Goodale Company, charged with swindling and obtaining money under false pretences by selling as Mellin's food a spurious compound of his own manufacture under their name and registered trade-mark. He confessed his guilt, and in default of bail was committed to the County Prison. It is reported that his arrest will be followed by others, as the parties in interest are determined to follow up with rigor and prosecute all who are found to tamper with their labels and goods.

Book Notices.

THE PATHOLOGY AND TREATMENT OF DISPLACEMENTS OF THE UTERUS. By DR. B. S. SCHULTZ, Professor of Gynecology, Director of the Lying-in Institution, and of the Gynecological Clinic in Jena. Translated from the German by JAMESON J. MACAN, M. A., M. R. C. S., Eng., and edited by ARTHUR V. MACAN, M. B., M. Ch., etc., Master of the Rotunda Hospital, Dublin. Pp. 378. With one hundred and twenty illustrations. D. Appleton & Co., New York, publishers.

DR. SCHULTZ seems to have made a very thorough and painstaking study of the Displacements of the Uterus. He contends that, although his views are in some respects opposed to those of other authorities, they are being gradually received on the continent, and must in time be generally accepted.

Perhaps the most characteristic feature of this author's teaching is the preponderance he gives to mechanical over operative surgical treatment. He endorses for the treatment of those displacements which essentially depend on relaxation of the muscular attachments of the uterus the Thure Brandt method of mechanical treatment, which includes massage and what may be called uterine gymnastics.

He considers Uterine Displacements under two chief headings, first, their General Pathology; second, their Special Pathology, and discusses in eleven chapters: The Normal Position of the Uterus; Definition, Classification and Statistics of Displacements; Symptoms and Diagnosis; Anatomy, Etiology and Indications for Treatment; Elevation of Uterus; Anteposition; Retropostion; Lateral Position; Lateral Version and Lateral Flexion; Torsion; Anteversion and Anteflexion; Retroversion and Retroflexion; Descent and Prolapse; Hernia and Hysterocele; and Inversion.

The work seems to us free from the extravagances and extreme views of some writers on gynecology, and commends itself as a reliable guide for practice to the general practitioner.

HAND-BOOK OF MATERIA MEDICA, PHARMACY AND THERAPEUTICS, Compiled for the Use of Students Preparing for Examination. By CUTHBERT BOWEN, M. D., B.A. Pp. 366. Published by F. A. Davis, Philadelphia. 1888. Price $1.40.

The expressed purpose of this book is to enable students of medicine to cram for examination. For this purpose it may not be without utility as it seems to be a fairly complete resumé of many of the important facts of pharmacy, materia medica and therapeutics. Inasmuch, however, as these facts are more fully set forth in the text-books which all students usually possess we do not regard the book as by any means a necessary one.

The printing is well done and the book is substantially but not tastefully bound, the copy before us being bound in conspicuous purple cloth. We would like to see the same good taste exercised in binding medical books as is displayed in binding popular literature. A doctor's library should be not only a useful supplement to his acquirements, but also in appearance be such as to adorn and lend dignity to his office surroundings.

Therapeutic Brevities.

Glycerin as a Surgical Dressing.—"We want a dressing that is non-irritating, antiseptic, will not become adherent, will allow free drainage, will not allow the discharges to get hard and caked, will be truly miscible with the discharges, and not evaporate at any temperature of the body, nor occupy the place intended for the discharges." Thus writes Mr. Fleming, M. R. C. S., in a paper in the Brit. Med. Journal. He thinks we have the desideratum in the Glycerite of Starch of the Pharmacopœia with some antiseptic dissolved in it *e. g.*, corrosive sublimate 1 in 1000 parts. This application is not irritating, is antiseptic, and is removed easily from any wounded surface. Glycerin being truly miscible with the discharges is quite absorbent, and not evaporating, prevents the discharges from becoming caked, or hard and dry.

The glycerin, itself hygroscopic, does not usurp the place of the discharge, or prevent the free escape of the watery vapors. After several days such a dressing will still be found moist, soft and heavy with the amount of liquid it has absorbed.

It is most commonly applied thickly spread on one or more layers of Gamgee tissue or some absorbent material.

Mr. Fleming has had most encouraging results with incised wounds, lacerated and contused wounds, chronic granulating ulcers and in ten cases of purulent conjunctivitis.

Unna on the Treatment of Sweating Feet and Hands.—Dr. Unna (Monatsh. fur prakt. Derm., vol. vi., No. 15) recommends the treatment of cold sweating feet with hot foot baths, which should be taken at night with some stimulating substance such as spirit of campor, mustard, or vinegar, thereupon drying the hands and feet and rubbing with a stimulating ointment, for example, ichthyol and turpentine, of each five parts; zinc ointment, ten parts. In the morning, after washing, they should be rubbed with cold water and exercise taken, the cold rubbing being continued until a condition of hyperæmia and warmth is produced. The stockings are to be powdered with starch powder, mixed with a little mustard. In the treatment of warm sweating hands and feet he recommends ichthyol, but without the warm water at night and cold water in the morning. In the evening he recommends lukewarm water and rubbing with a simple ichthyol ointment (ichthyol, aqua āā, 5.0; lanolin, 200.0). In the morning washing with lukewarm water and ichthyol soap, rubbing off the lather with a dry towel so that some remains on the hands and feet.

The New Antipyretic, "Pyrodin"—A Warning.—Under this name a new drug has been introduced, which has undoubted temperature-reducing properties of a high order, the practical application of which, however, is much interfered with by its toxic action. Pyrodin contains as its active agent acetylphenylhydrazin ($C_6H_5N_2H_1C_2H_3O$) a crystalline powder very sparingly soluble in water. According to the clinical and experimental observations of Dr. Dreschfeld, of Manchester, which have been confirmed by M. Lepine, of Lyons, pyrodin acts in the same manner as, but more powerfully than, antipyrin, antifebrin, and phenacetin; and it has also been used effectively in migraine and other forms of neuralgia, as in the lancinating pain occurring in locomotor ataxy (Lepine). Great caution, however, is required in its administration, as it is apt to produce jaundice, followed by anæmia and even more serious symptoms due to hæmoglobinæmia. Milder toxic symptoms have occasionally followed the administration of acetanilid or antifebrin, and also of phenacetin; but, as phenylhadrazin is a much more powerful poison than anilin, so also are the toxic properties of its acetyl compound much greater than those of acetanilid. In face of the poisonous qualities of pyrodin, we must warn the profession against the use of this drug generally. In exceptional cases, and where other antipyretics have failed, it may be useful, but great caution should be used. Small doses only should be given, and at sufficiently long intervals to enable one to watch any toxic effects, with the first appearance of which the drug should be stopped.—*British Med. Jour.*, Dec. 29, 1888, page 1470.

Treatment of Phthisis by Carbolate of Camphor.—Dr. R. Shingleton Smith records two cases of phthisis treated by subcutaneous and intra-pulmonary injections of carbolate of camphor. Both cases improved greatly under the treatment. The injections consisted of ten, fifteen, or twenty minims of a saturated solution of camphor in carbolic acid, and were at first administered subcutaneously, and afterwards into the lung-tissue about the diseased areas in the apices. The latter gave rise to no sign of lung irritation, and the subcutaneous injections produced slight smarting only. These were given at first every second or third day, but afterwards daily, and about fifty injections in all were used in the course of ten weeks, in the first case. In the second, the whole quantity injected in twenty-five days amounted to 245 minims, 60 minims having been diffused in the diseased tissues in the apex of the right lung. The intra-pulmonary injections were preferred by one of the patients, as they "did not hurt so much as the subcutaneous ones." A slight rise of temperature was observed after the injections in one or two instances, but no other evidence of irritation was noticed.—*London Med. Recorder.*

Effect of Hydrofluoric Acid on the Bacillus Tuberculosis.—Four guinea-pigs were inoculated with the sputa of phthisical patients, and six with sputum which had been subjected to the influence of hydrofluoric acid of various strengths for forty-five minutes. Two only of the four control animals succumbed to general tuberculosis, while all the six animals inoculated with the sputum subjected to the hydrofluoric acid developed symptoms of general tuberculosis within from five to eight weeks, even more severely than the others. It is evident, therefore, that hydrofluoric acid, in solution, in no wise modifies the virulence of the tubercle-bacillus. Experiments were then carried out with the pure vapor of hydrofluoric acid, and showed that the latter really possessed the power of sterilizing tuberculous sputa; but the observation is devoid of any practical value, inasmuch as the idea of introducing the pure acid into the organism could not be entertained.—Jaccoud, as reported in *Lon. Med. Rec.*

Hamamelis and Hydrastis in Hemorrhage.—Dr. Koeniger writes in Das Therapeutische Monatschaft that he has for some years employed hamamelis and hydrastis in the arrest of hemorrhages of various kinds in preference to ergot and iron, which, in large doses, tend to disorder the digestion. He confesses freely that there are cases, especially of violent hemorrhage, where neither hamamelis nor hydrastis has any effect, but in the majority of cases these drugs exert a very beneficial action. In menorrhagia he finds hydrastis especially valuable when given for some time before the period. It also acts as a tonic and improves the appetite. In cases of hæmoptysis, from twenty to thirty drops of the fluid extract of hydrastis three times a day, with rest in bed, ice, cold milk, and simple diet, usually, says Dr. Koeniger, act remarkably well. No evil effects have been observed beyond a certain amount of headache occasionally where large doses, that is to say more than forty drops, had been given.

Condurango as a Stimulant of Digestive Secretions.—Condurango is claimed by Dr. J. Chelzew to have a great influence in promoting the secretion of pancreatic juice, of bile and of gastric juice, these results have been obtained by experimenting on dogs. The animals were made to fast 18 to 20 hours. The medicament was administered to them in the form of decoction (15 grams=308.8 grains of condurango root in 360 grams=11 ozs. water) evaporated down to half. On the non fasting dog the effect of the medicament was nil, on fasting dogs the gastric juice is notably increased.

On pancreatic secretion the effect was positive in a notable way, for the juice was considerably increased. Its action on the liver was to notably increase the biliary secretion. Several years ago we saw a statement in a German medical journal that condurango was of considerable benefit to some consumptive cases, the reason assigned was its influence in promoting assimilation of fats. These points are worth recollecting.

Cocaine Spray in Bronchial Affections.—At a recent meeting of the société Médicale des Hôpitaux, Dr. Perron, of Bordeaux, made a communication on the advantages of sprays of solutions of cocaine in various bronchial affections. Under the influence of a two-per-cent solution of cocaine, which is used in the form of a spray, the most violent fits of coughing

are arrested in a few minutes. Phthisical subjects who are troubled with coughing and consequent insomnia at night, experience immediate and durable relief from this treatment. By this means opiates, which are always more or less injurious after a time, are avoided. In acute bronchitis the action of cocaine is as advantageous. A notable modification takes place in the state of the pulmonary mucous membrane, and, owing to the insensibility thus produced, the inflammation and the secretion are diminished. About ten or twelve inhalations, practiced by means of the spray producer placed near the mouth wide open, suffice to bring about prompt and satisfactory results.

External Application of Chloral Hydrate in Night-Sweats.—Dr. Nicolai (Gazette Médicale) has obtained very favorable results from the use of chloral hydrate in the night-sweats of phthisis. Every night before retiring the entire body of the patient was sponged with the following:

℞ Chloral hydrate, ʒ ij.
Alcohol,
Water, ää ʒ iij.
M.

Should this not suffice, the patient's nightdress is saturated with this solution, then allowed to dry, and worn.

This mode of treatment also gave excellent results in the night sweats of children the result of phthisis. Two or three of these spongings will generally suffice to check a sweating which has persisted for two or three weeks.—*Bull. Thérapeutique*, Dec. 13, 1888.

A New Pepsin.—We have received from Parke, Davis & Co. specimens of their pepsin in scales, the same preparation in powder, a much more convenient form for dispensing, and a glycerole of pepsin. It is claimed for this pepsin that it is soluble, comparatively non-hygroscopic and free from peptones; and that for this reason it will not decompose, and emit the disagreeable odor common to most pepsins. It is also stated that one grain will digest 2,000 grains coagulated egg-albumin. These preparations are excellent in appearance, and are remarkably free from odor. They are freely soluble and mix readily with various menstruums. We have carefully tested the pepsin, in accordance with their modified U. S. P. test, and find the digestive power to be 1:1,800. This, of course, is much above the average of other preparations on the market.—*Occidental Medical Times*, Jan., 1889.

Cactus Grandiflora in Heart Disease.—Cactus grandiflora has been for fifteen years used by Dr. C. L. Gregory, of Yreka, Cal. (Med. News). He believes that where dilation has outstripped the compensatory hypertrophy, it is a more satisfactory remedy than digitalis, and in functional valvular disease it is the only drug he uses. When there is a fault in the cardiac innervation, the heart's action being tumultuous, irregular, intermittent, feeble, the patient nervous, restless, and dreading some impending danger, the continued use of cactus will almost invariably give permanent relief. The dose recommended is from one to five drops of the tincture of the fresh plant every two, four, or six hours.

Nargeamia Alata—A Substitute for Ipecac.—The air-dried stems and root of naregamia alata or goanese ipecacuanha, have been the subject of further therapeutic trials by Surgeon-General Bidie, who reports that, on the whole, the results have been satisfactory and such as to encourage the further use of the drug. It is thought probable that in mild cases of dysentery the indigenous remedy may be of use in supplementing the true ipecacuanha. Specimens of the naregamia alata have therefore been planted with a view to testing its rate of growth in the botanical gardens in Nilghiris.

Thuja Occidentalis for Warts.—W. F. B., Washington, a correspondent of the Druggists' Circular, writes that his attention was called some time ago to the action of this remedy on warty growths, and he has used it since with entire satisfaction. He administered the fluid extract in five-drop doses twice daily, and applied it externally at the same time. Two weeks' treatment usually suffices to effect the removal. In some cases he has found the local application alone to be sufficient.

Medical Progress.

SIR MORELL MACKENZIE ON THE TREATMENT OF ACUTE AND CHRONIC TONSILLITIS.—On Tuesday, December 4th. Sir Morell Mackenzie visited the throat clinic of the Edinburgh Eye, Ear, and Throat Hospital. He examined a number of the patients, and in the course of a short clinical lecture made the following remarks:

There are two forms of acute tonsillitis, the superficial and the deep. All of you must be well acquainted with these familiar diseases, but perhaps you will like to hear my experience of the treatment. The superficial is not very serious. It is, however, painful, and is apt to recur. A person who has had it once is very likely to have it again. This is true of both forms of tonsillitis, but is particularly so of the superficial. The interior of the follicles becomes inflamed and secretes an unhealthy mucus, and they never thoroughly recover. In all inflammations of mucous membranes the membrane does not really get well, though it may appear to do so. A celebrated French surgeon has said that he does not believe that a person ever really recovers after a gonorrhœa. This is true of the follicles of the throat. A person who has once had acute tonsillitis never really gets well, though he may appear to do so. The treatment, therefore, is important. One of the most popular remedies is aconite—originally, I believe, a homœopathic drug, but now used extensively by allopaths (though I object to the term)—and strongly recommended by Dr. Ringer. It has certainly never, in my hands, proved to be of the extraordinary value which he asserts. On the other hand, I have found guaiacum, which used to be given in the form of the ammoniated tincture, very effi-

cient. I recollect a Manchester surgeon, Dr. Crompton, who used to come a good deal to the Throat Hospital about the time it was founded, telling me I should find much more benefit by giving it in the form of a powder; and I did so, letting the patient take a pinch of the resin. This was rather disagreeable, and after a time I had it made into lozenges containing about three grains in each. In this form it makes an excellent remedy. Nine cases out of ten will get rapidly well if one of these lozenges is given every two hours at the outset. I sometimes also apply locally a little bismuth and opium, or an eighth of a grain of morphia with a quarter of a grain of starch, because the problem is not only to cure the patient, but to keep him comfortable till he is cured. Sometimes the guaiac causes a little diarrhœa, which is not altogether disadvantageous, but the morphia is usually sufficient to check it. What I have said about guaiac applies to acute inflammations of any part of the back of the throat. Dr. Home has said of guaiacum, "Instar specifici in hoc morbo operatur." It is really specific. I have used it for fully twenty years, and I assure you it is one of the best remedies you could have. It causes a slight stinging sensation, and this is an additional reason for using the morphia.

Occasionally this superficial or follicular tonsillitis if not checked passes into the deep or parenchymatous form, and the structure of the gland becomes very much affected. When the deep inflammation occurs you must bring it to an abscess as quickly as possible, and open it. Trousseau has pointed out that some inflammations begin in the deep part of the gland, and these you can't check, as a rule, though you may sometimes succeed with guaiac. I have done so in two cases lately. We are usually, however, called in too late. When you find you cannot stop the disease, give inhalations of benzoin, hop, or conium, and apply poultices to the outside of the throat. Directly you can find fluctuation, make an opening. As the tonsillitis develops it prevents the patient opening his mouth, and there is some difficulty in getting at the abscess. This is the reason why surgeons sometimes have to let the abscess burst, but this should be avoided, if possible, because it has been followed by dangerous, and even fatal, hæmorrhages. I generally use a curved and guarded bistoury, of which only the last quarter of an inch has a cutting edge, but an ordinary bistoury, the greater portion of the edge of which is covered with diachylon, may also be used. The incision is made with the cutting edge directed inwards to the centre of the mouth. You must never cut outwards, for there is then the danger of wounding the carotid. I would recommend you to incise in cases in which you may not be quite certain of fluctuation. A slight puncture, even if pus is not evacuated, does no harm. The use of leeches was at one time common, but Louis, the French physician, proved that they did not cut short the disease by more than one day, and therefore their application was not desirable. Leeches have the effect of increasing the inflammation rather than otherwise if less than six are applied.

Chronic tonsillitis, or hypertrophy of the tonsils, proceeds from two causes. A large number of the cases are the result of a low form of inflammation occurring in childhood. The structure in childhood is very prone to become inflamed. If the tonsils are considerably enlarged, it is important to remove a portion of each. You should never speak of "cutting out the tonsils," as this sounds very alarming to the patient and his friends. Say that you mean to remove only "the diseased and enlarged portion." It is a consideration when you should do this. How much enlargement should there be before the operation is performed? First of all, the question of size is entirely relative. In a large throat the tonsils may grow to a considerable size, and the patient still do quite well. In a smaller throat this would not likely be the case. If the tonsils touch each other you can have no doubt as to the propriety of taking away a piece. If adult patients come to you with the tonsils slightly enlarged, it is an important question whether you should cut off a portion or not. If the enlargement is associated with frequent attacks of acute inflammation, you ought then to cut away a piece. There is another condition which requires a similar proceeding. When the follicles of the tonsil are much enlarged, you cannot cure it except by taking off a section, which may be not more than one-eighth of an inch thick. You thus clear away the walls of the deep follicles and get a flat instead of a "worm eaten" surface. As to the method of operating, many surgeons do it with a bistoury, and Sir William Ferguson, a great surgeon, for whom I had the greatest admiration, used to perform it in this way, but it was terrible to see the patient struggling with the mouth half full of blood before the operation was completed. Great surgeons will do all they can with a knife instead of what they call a "machine." I always perform the operation, however, with "a machine," a tonsillotome. The particular form I use is a modification of Physick's. The great advantage of this is that its mechanism is quite simple, and my modification enables the handle to be fixed on either side of the blade, so that the operation may always be performed with the right hand if the operator desires. As a general rule lightness of touch is the chief desideratum in operating, but in tonsillotomy it is the reverse. Heaviness of touch is the important thing. The tonsillotome must be pressed well over the tonsil, which is also to be projected into it by pressure with the left thumb placed under the angle of the jaw. I once had a colleague who could do very little else, but he took off tonsils marvellously, and as I watched him I observed that it was this heaviness of touch that made him so successful. If you don't attend to this you will not take off nearly so much as you desire. Patients have come to me a week or a fortnight after the performance of the operation by another surgeon saying that the tonsil had been removed but has grown again! This of course means that enough was not removed at the operation. It is most important to take off enough. Hæmorrhage from this operation is rare, but it has occurred, and the carotid in some instances has had to be tied. I once had a serious hæmorrhage to deal with some twenty-five years ago. The usual styptics, and even the cautery failed to relieve. At last I tried a remedy, which I have used ever since with perfect success. A chemist had informed me a short time before that a small quantity of gallic acid would prevent tannic acid dissolving. I mixed two parts

of the tannic and one of the gallic in a little water, and gave the patient two teaspoonfuls, telling him to sip them slowly. The bleeding stopped almost at once. We have since used the same preparation at the Throat Hospital, and always with perfect success. The patient must be told to swallow the liquid, not gargle. Application with a brush will do no good. He should swallow the fluid slowly, as if it were difficult to get it down, and must on no account wash out his mouth or gargle.—*Edinburg Med. Jour.*, Jan., 1889.

CREASOTE IN THE TREATMENT OF PHTHISIS.—Of individual drugs, creasote has lately been urged in a manner which really appears to bespeak for this substance considerable power for good, more particularly in the earlier stages of the disease. In our own country the subject has quite recently received the attention of several physicians, notably of Drs. Austin Flint and Beverley Robinson. The former of these has published, in the New York Medical Journal, a report of ten cases of consumption treated by the use of creasote. From his study of these cases he is led to advance the opinion that creasote by the stomach and by inhalation, in cases of solidification without cavities, effects prompt and decided improvement in all phthisical symptoms, with increase in appetite, weight, and strength, even with surroundings much less favorable than would obtain in many cases in private practice.

In cases with small cavities much less improvement is to be looked for, but some benefit may be expected.

In cases with large cavities the treatment seems to have little more than a palliative influence.

His observations are defective as regards the influence of the treatment upon the bacilli. In one case, with large cavities, it was noted that the number of bacilli was diminished. No other examinations for bacilli were made during or after treatment.

No estimate was made of the relative value of creasote taken into the stomach. As regards inhalations, it is assumed that the chief benefit was derived from the creasote, the spirit of chloroform and the alcohol rendering this agent more volatile, and soothing the mucous surfaces. The inhaled vapor undoubtedly penetrated by diffusion as far as the air cells. It is by diffusion that fresh air, anæsthetic vapors, etc., penetrate the lungs, and cases of pneumonokoniosis illustrate the fact that even solid particles may be carried to the pulmonary vesicles.

He has also employed the method of inhalation, conjoined with other treatment with good results.

From the observation of a large number of cases Dr. Robinson (The American Journal of the Medical Sciences, January, 1889) is convinced that "we have in beechwood creasote a remedy of great value in the treatment of pulmonary phthisis, particularly during the first stage of pulmonary phthisis. Not only does it lessen or cure cough, diminish, favorably change, and occasionally stop sputa, and often relieve dyspnœa; but it also frequently increases appetite, promotes nutrition, and arrests nightsweats. It does not occasion hæmoptysis, and rarely causes disturbance of the stomach or bowels, except in cases in which it is given in too large doses."

Dr. Robinson also believes that there is a fair amount of evidence to show that by its long-continued judicious use, it may modify favorably the local changes in pulmonary phthisis. Whether it has any antiparasitic effect remains to be determined in a more accurate manner. It is certainly, according to this author, an unobjectionable medicament from any point of view. It is easy of administration, it is adapted to the majority of sufferers from pulmonary phthisis everywhere; it may be used with some advantage in all stages of this disease, and finally, it has proven itself superior to any other medicinal treatment with which he is familiar.

Dr. Robinson employs creasote both internally and by inhalation, the combined method being in his judgment, the most efficient one. The ordinary dose has been half a minim repeated every two or three hours. English beechwood creasote is given the preference over other preparations on account of its purity. It is employed with whiskey and glycerin according to the following formula:

℞ Creasote (beechwood) ♏vj,
Glycerin, ʒ j,
Whisky, ʒ ij.

M. Sig.: As directed.

From what has been written on the creasote treatment of phthisis, we may feel reasonably certain that the remedy is not devoid of utility in its proper sphere. The climatic treatment of consumption is, after all, but the rich man's remedy. By far the larger number of phthisical patients will continue to seek relief from their ailments by the use of medicines, and creasote will doubtless soon be employed on a sufficiently large scale to definitely determine its true value.—*N. Y. Med. Record.*

EQUIPMENT FOR RECTAL SURGERY.—Dr. C. B. Kelsey, of New York, says that he never arranges a case of rectal instruments for operating (preferring to select those necessary for any particular case just before the operation and carry them rolled in chamois in a small handbag). He says I have for greater convenience arranged another bag which is always ready, and contains not the instruments for any particular operation, but the things which in addition to them are essential for every operation. I find that much time and annoyance is saved by this expedient, especially if the bag is carefully rearranged after each time it is used, and kept always ready for the next.

In contains:

1. Operating gown of white muslin, clean from the wash.

2. Two rubber sheets. One of these is a yard square to protect the carpet and hold an ordinary wash bowl, which can always be obtained in any house; the other is one-and-a-half yards long by a yard wide, and is long enough to protect the bed and hang down into the bowl as a trough for blood and fluids.

3. Fountain syringe with a loop of strong cord attached to the metal ring at the top so that it can be hung on the top of a door if nothing else is convenient, and plenty of rubber tubing to reach a considerable distance.

This is for irrigating, and the bi-chloride solution is carried in a bottle provided with a metal case. If it is made of the strength of sixteen grains to the ounce, one ounce of the solution to the quart of water will make a solution of about one part to the thousand.

4. A Clover's crutch (Dr. Peter's modification).

5. Ether and inhaler.

6. Small bottle of pure carbolic acid (all glass bottles should be in metal cases to prevent breakage).

Half an ounce of this to the pint of water poured into a shallow dish answers for immersing the instruments during the operation.

7. A small jar of carefully prepared sponges, each of which is thrown away after being used.

8. Long handled sponge holders.

9. A rubber bag full of picked lint and bi-chloride gauze.

10. Iodoform in an insufflator with a long nozzle. This is much better than the hard rubber sprinkling box with which it is very difficult to carry the powder within the rectum.

11. Bandages and suppositories.

12. Small graduate.

13. Vaseline or carboline.

The things thus far enumerated are necessary for every cutting operation about the rectum, and, although their preparation and use entail some little care and trouble, it will be more than repaid both in actual results and in the sense of security. The time was when all that was necessary for an operation for hemorrhoids, were forceps, scissors and a string.

As the above-enumerated things are necessary for a simple operation, and only a few others are needed for a much more extensive one, the latter can easily be added when required. These are:

14. A jar full of drainage tubes of various sizes kept in carbolic acid solution.

15. Bottles of cat-gut and silk sutures of all kinds. The silk may be kept in carbolic solution and the cat-gut in alcohol.

A very convenient arrangement for these is made by fitting a rubber cork tightly in a large sized test-tube, and attaching to the cork a bobbin divided into three compartments for diffierent sizes of ligatures.

16. A bell shaped sponge with vulcanite tube and a bottle of dry sub sulphate of iron for packing the rectum in case of hemorrhage.

17. Hypodermic syringe.

With this bag at hand the surgeon is ready for almost any emergency in rectal surgery. The cutting instruments, forceps, Paquelin cautery, écraseur, speculæ, artery forceps, etc., can be taken from their case and be ready for use in a very few moments.

PEPSIN IN SURGERY.—The digestive ferments have only recently attained that state of perfection which enables the physician to use them successfully in the various derangements of the digestive tract, and as a solvent by local application to the diphtheritic membrane. This last use of the ferments suggested to me their use in surgical cases, and for some months past I have been using pepsin in surgical work. Pepsin is best applied in the form known as "pepsin in scales," or as an ointment with lanolin as a base:

℞ Pepsin, gr. 50.
Lanolin, ʒ ss.
M.

The cases cited below well illustrate some o its applications.

1. In ulcerations.

Case I.—Mrs. T—— had a varicose ulcer o leg covered with thin adherent membrane, be neath which were weak granulations. Aroun the ulcer for an area of two inches was an acut eczema. The ulcer was foul smelling. Pepsi ointment with cotton dressing was applied. I five days the dressing was removed. Th eczematous patch was less inflamed, the dis charges not offensive, and the membrane wa entirely dissolved. The granulations wer healthy. Bismuth was now applied and th ulcer was soon healed.

Case II.—Mrs. M. D—— presented upon th middle of the tibial crest a varicose ulcer. Th base of the ulcer was covered with a thick yel lowish membrane. "Pepsin in scales" wa applied to this ulcer. In one week the mem brane had entirely disappeared and the ulce was in a healthy condition.

Case III.—M. D—— has a large epithelioma tous ulcer (rose cancer) of the neck. The centr of the ulcer is sloughing rapidly. The whol surface of granulations is covered with a mem brane. The secretion from the ulcer is abun dant and very foul. Pepsin ointment was ap plied daily to ulcer. In two days the surface o granulations was free from membrane and the looked smaller and red. Wherever the oint ment was applied the sloughing ceased, bu from the deeper parts of ulceration the dis charge was unchanged.

2 In cicatricial contractions.

Case I.—D. H. J—— two weeks ago had periostitis of first phalanx of middle finger wit cellulitis of palm of hand. The resulting ab scess was lanced in two places. When he cam under my observation the suppurative proces had left much inflammatory induration in th palm of the hand, extending to the second phalanx. There was a small sinus leading t bare bone on the first phalanx. The patien was unable to flex the finger because th flexor tendon was adherent to its sheath, and could not extend it on account of the cicatricia condition following the abscess. Pepsin oint ment was applied to the palm, and the whol covered with a cotton dressing. In three day the sinus had closed and the cicatrix was muc softer. After six days the palm was markedl less indurated, and the patient could flex th second phalanx completely. In ten days th patient was able to resume his employment a a cutter, and was fully able to hold the knif steadily in his hand.

Case II —Mrs. M. W—— had a parotid ab scess complicating pyæmia. The abscess open ed spontaneously and soon healed. There re sulted much induration and considerable thick ened cicatricial tissue, extending from th angle of the lower jaw to the zygoma, an from the sterno-mastoid muscle to the borde of the masseter muscle. This cicatricial tissu produced anchylosis of the lower jaw on the af fected side, so that the patient was enable t open her mouth enough to admit solid food Pepsin ointment was applied twice daily. In one week there was marked improvement i opening and closing the mouth, and the tumo

had nearly disappeared. In two weeks there was no trace of the swelling, and movements of the jaw were perfect.

Remarks: 1. In all ulcerations covered with a slough, or having a membranous base, pepsin is of use to digest this slough and bring about a healthy condition. 2. The efficiency of pepsin ceases when the slough has dissolved. 3. In cicatricial tissue causing anchylosis pepsin is of use by dissolving the cellular element. In this condition pepsin may act similary to mercury and the iodides, or as a digestive.—Henay B. Douglass, M.D., in *Med. Record*, Dec. 22, 1888.

ADMINISTRATION OF COD-LIVER OIL IN PALATABLE FORMS.—The great therapeutic value of cod-liver oil in phthisis, scrofulosis, and similar disorders, is recognized by all physicians, but its administration is often prevented by its markedly disagreeable odor and taste, which frequently produce nausea, and sometimes actual vomiting in those who attempt to take it.

One of the problems of modern pharmacy has been to produce a palatable preparation of cod-liver oil. As a result, there have been placed upon the market a large number of patented or proprietary emulsions of the oil. All of these preparations are advertised more or less as cures for consumption and other wasting diseases. Some have a general formula stating that the preparation contains a certain percentage of cod-liver oil made into emulsion and combined with one or more articles of doubtful therapeutic value. Others have an exact formula published with the preparation. The latter are a trifle more worthy of recommendation than the former, but most bear the stigma of being patented or proprietary articles, and, therefore, should not be prescribed by a physician if he knows any other method of prescribing which will produce a palatable and useful preparation of cod-liver oil. The object of these remarks is to introduce to the profession a formula which meets those requirements. It was originated by the writer when *interne* in the Buffalo General hospital in 1883. It is as follows:

℞ Ol. morrhuæ, ʒ viii.
Aquæ, ʒ ivss.
Sodii carb. exsiccat, gr. x.
Ol. eucalypti, ʒ i.
Sp. frumenti, q. s. ad. ʒ xv.

Dissolve the sodii carb. exsiccat (the bicarb. must *not* be used) in the water, add the oils and the whisky, and mix well by violent shaking. As this contains 53⅓ per cent. of cod-liver oil by volume, the dose can be calculated on this basis. The oil of eucalyptus covers the taste of the cod-liver oil better than anything else that we have been able to find, but as its own taste is disagreeable to some patients it can be replaced by the oil of wintergreen, the objection to this being that the taste keeps coming up into the mouth for some time after taking the dose.

That this is a true emulsion can be learned by the microscope, the evenness and firmness of the emulsion depending upon the amount of time and energy used in the original mixing. For a proper emulsification the ingredients should be poured into a pint bottle and shaken violently from three to five minutes. Before each dose the bottle should be again thoroughly shaken for about half a minute. The 15-ounce mixture is made in order that there may be room in the pint bottle for the violent agitation that is necessary at the first mixing.

Another excellent formula is one of Prof. Chas. G. Stockton's. The formula is as follows:

℞ Peptonized beef, ʒ iv.
Sacch. albi., ʒ ii.
Ol. gaultheriæ, ♏xxv.
Ol. morrhuæ, ʒ viii.
Alcohol, ʒ i.
Aqua, q. s. ad., ʒ xvi.

M. bene ut emulsio fiat.
Sig. "Emulsion cod-liver oil."

—*West. Med. Press.*

TREATMENT OF ACUTE CORYZA.—Dr. Frank Hamilton Potter, of Buffalo, recommends the following treatment for this affection:

If the cold comes on towards evening, a hot bath should be taken, followed by the exhibition of $\frac{1}{100}$ to $\frac{1}{60}$ of a grain of sulphate of atropia, and the patient well wrapped up in bed. A word of caution is necessary in regard to the use of the atropia. Some people are very susceptible to its influence, and when given for the first time a much smaller dose must be used—say $\frac{1}{300}$ to $\frac{1}{150}$ of a grain. When found to disagree, a full dose of the sulphate of quinine, about ten grains, may be substituted. During the next day the nose and upper part of throat should be thoroughly washed out with a warm alkaline spray; or, still better, with a douche, by means of the posterior nasal syringe; the turgescence of the nasal tissues contracted by means of cocaine; and, finally, the entire surface covered with a coating of an unirritating oil. The *oleum petrolina* he has found to be the best for this purpose. This should be done about three times in the course of the day. If the cold is first noticed in the morning, the process should be reversed; the local treatment given during the day and the general treatment at night. From experience he was able to report that, by this method, colds that generally last from ten days to two weeks can be limited to about two days. The discomfort after that is so very slight as not to be considered. He does not propose this as an infallible method, but where it fails it will usually be found that there is some intra-nasal chronic disease, or else some constitutional disorder which makes the attack of extraordinary obstinacy.

Lately, Dr. F. Cardone, of Naples, has contended for the parasitic nature of acute coryza, stating that its morbid process is analogous to that of pneumonia. He has found in the secretions the *streptococcus pyogenes*, the *staphylococcus aureus et albus*, and, in still greater numbers, the *diplococcus* of Fränkel and the *pneumococcus* of Friedlander. If he is correct, we can, perhaps, understand the great benefit resulting from the early and continued cleaning of the parts, such as the above treatment advocates. On the other hand, if a cold is caused by the paresis of the nerve centres governing the vaso-motor phenomena of the upper airtract, we can also understand how the counter-

shock of the hot bath and atropia treatment, together with local depletion, so rapidly subdues the inflammatory action and restores the patient to accustomed health.—*Buffalo Med. and Surg. Jour.*, Jan., 1889.

ALCOHOL IN DIPHTHERIA.—The free use of alcohol in diphtheria has many advocates, and there is no doubt of its value. The whole subject of diphtheria and its treatment has been lately under discussion by the King's County Medical Association, in which the members offered their opinion upon each of thirteen questions propounded by the opener of the debate, Dr. Avery Segur. We must, however, here limit our notice to No. 7, which ran, "What is the evidence that very large quantities (over one or two pints a day) of brandy or whisky are necessary in severe cases, and what is the limit of alcoholic tolerance?" To this Dr. Rushmore replied (Gaillard's Med. Journal, Dec., p. 570) that "the effect on the throat and the nervous prostration should be the guide in the use of alcohol, and not to see how little the patient can get on with or how much he can tolerate. A pint in the twenty-four hours has been in a few cases apparently the life-saving remedy." Dr. Thayer said that the free use of alcohol is necessary in some cases, and its tolerance is very great. He treated a child of eighteen months exclusively with whisky, six ounces daily for several days, without any exciting effects. The child recovered. He added that the late Dr. E. N. Chapman advocated the treatment of diphtheria by alcohol and quinine alone, and had remarkably good results. In seventeen years (1861 to 1878) that physician had treated 125 cases with only one death, his plan being to give alcohol from the outset in hourly doses. Dr. Thayer also says that such results can hardly be reported by any other practitioner, and quotes Dr. Chapman's view that alcohol neutralizes the diphtheritic poison, but it should be given promptly at the outset, or otherwise it may be useless. Dr. McCollom would place alcohol first in the list of remedial agents and advise its use in all cases. In view of the character of this disease and the hopelessness with which so many agents are tried to "neutralize the poison," it might be worth while to more freely resort to the administration of alcohol, even in an early stage. Apart from its action on the nervous and vascular systems, alcohol is, it must be remembered, a valuable antiseptic agent, and its diffusibility as well as the apparent impunity with which it can be given in specific disease without producing its usual physiological effects, ought to lead to its more liberal use at other periods of the disease than those when the diphtheritic poison has gained so firm a hold that death from cardiac failure is imminent.

CEDRON NUTS FOR SNAKE BITE.—Dr. C. Bousseau states in the Journal de Medicine et de Chirurgie Pratiques, that being called in a case of snake poisoning in which the patient exhibited serious symptoms, he determined to try cedron nuts, the seeds of Simaba cedron, having seen them highly spoken of by Dr. Saffray some years since. In order to satisfy the people present, the doctor slightly cauterized the wound with ammonia and immediately ordered a cedron nut powdered and mixed with 50 grams of strong white wine to be taken internally while another nut was powdered and mixed with 10 grams of alcohol and applied to the wound. The patient becoming delirious, it became necessary to use force in administering the remedy. He gradually improved, however, and eventually totally recovered. While not believing the remedy to be necessarily infallible Dr. Bousseau thinks that the success met with in this case, together with its use for the same purpose in New Grenada, indicate the practical value of the cedron nut as an antidote to snake bites to a sufficient extent at least to warrant further investigation.

ANTI-BACTERIAL ACTION OF ANTIPYRINE.—Dr. Keldysh has carried out numerous bacteriological experiments for verifying Neudoerfer's startling statement concerning the antiseptic power of antipyrine. He inoculated dry pure cultures of the staphylococcus aureus and albus and micrococcus prodigiosus in a solid nutritious jelly containing 2.5, 5 and 10 per cent. antipyrine. In every one of the experiments an excellent growth of the microbes was invariably obtained which did not in any way whatever differ from that in a set of controlling test-tubes containing a non-antipyrinized nutrient jelly. There was not even any retardation in the bacterial growth; hence Dr. Keldysh goes still further than Dr. Lenevitch and says that antipyrine does not possess any antiseptic properties at all.—*Russkaia Meditzina*, No. 26, 1888.—*Annals of Surgery*, Jan., 1889.

SNUFF FOR HEMICRANIA.—Ch. Liégeois recommends the following snuff for hemicrania (Lyon Médical):

℞ Quininæ sulphatis, gr. xxv.
Sodii salicylat. cryst., gr. xxv.
Morphinæ muriat., gr. ¼.

M. ft. pulvis. Sig.: Use as a snuff.

At the beginning of an attack of hemicrania, accompanied by pallor, a small pinch is to be snuffed every half hour until four are taken. The above should make about eight pinches. After the last pinch is taken, a granule of aconitine (crystallized) of gr. $\frac{1}{100}$ should be taken. In an hour or two, after the inception of this treatment, the paroxysm will have disappeared.—*St. Louis Med. and Surg. Journal*, Jan., 1889.

THE VALUE OF JABORANDI AND ITS ALKALOIDS IN THE TREATMENT OF BRIGHT'S DISEASE.—J. G. Marshall, B. A., M. B., says, in a recent number of the London Lancet, that the value of jaborandi and its derivatives in the treatment of dropsy of Bright's disease cannot be over-estimated. By its use he has relieved in several cases some of the most distressing features of this complication, and prolonged or rendered less painful the termination of life in others.

The Medical Age.

Vol. VII. DETROIT, FEBRUARY 25, 1889. No. 4.

Original Articles.

THE TREATMENT OF SIMPLE CHRONIC RHINITIS.

BY CHARLES H. MERZ, M. D., SANDUSKY, O.

Of one hundred given individuals living in our lake states, probably seventy-five have now or have had some catarrhal trouble of the nose or throat. The prevalence of these catarrhal conditions has become so common as to make every practitioner consider seriously the best means of their treatment. The subject would seem to be of sufficient importance to warrant the belief that any communication will be acceptable which will tend to harmonize the differences of opinion which exist as to what is or what is not the best method of treatment.

The subject is an extensive one and about which much has been written by the profession. The daily papers are filled with advertisements of sure catarrh cures, which but too often lead to the establishment of a catarrhal condition where none existed before. But that the condition is a very common one, is farther attested by the immense sale of these nostrums and the variety of remedies resorted to by the credulous.

One of the conditions most prevalent is simple chronic rhinitis or dry catarrh.

First, then, as to the diagnosis of simple chronic rhinitis. Usually it can be readily recognized. Upon examination, the mucous membrane of the nose will be found turgid and perhaps much swollen. Often it is coated with a thick tenacious mucous, which, in certain cases, assumes a purulent character. This mucus frequently drops down or is drawn down through the posterior nares into the throat and is either expectorated or swallowed. With each attack of "cold in the head," this discharge is increased until it offers more or less interference with nasal breathing. At such times there may be complete obstruction of both nostrils from the accumulation of this thickened mucus in the posterior nares and the dry swollen state of the Schneiderian membrane.

During the warm summer months these symptoms decrease in severity or disappear entirely, but return with the advent of cold weather.

At times there is present a dull aching pain over the eyebrows with a more or less copious watery discharge from the eyes. The patient will often complain of a smarting sensation in the upper lids, and the eyes tire easily.

Owing to the dryness of the secretions, an accumulation of dry scabs takes place, necessitating the frequent insertion of the finger into the nostril for their removal. In some cases the hearing will be found defective owing to the extension of the inflammation to the Eustachian tubes.

The mucous membrane is often congested and swollen, pitting on pressure and closing the nasal passages. When no discharge takes place through the nasal passages, the secretion usually passes back into the pharynx, calling for frequent "hawking" and expectoration. The sense of smell may suffer, as may also the voice. Owing to the necessity of breathing through the mouth, irritation and chronic inflammation of the pharynx, larynx and even the lungs may follow.

As to etiology, chronic nasal catarrh is most commonly due to repeated or prolonged exposure to changes of temperature; to cold and damp such as occur in the climate of our Lake Regions. In this connection should be mentioned the inhalation of air loaded with fine dust as it frequently is in regions overlying limestone formations. There is something peculiarly irritating in this dust both to the nasal passages and the eyes.

Air charged with any irritating substance is particularly apt to excite a catarrhal condition. For this reason the inhalation of fine sawdust, tobacco dust, etc., is injurious. The irritating character of the air inhaled accounts for the catarrhal condition so frequently found among smokers. Last, but none the less important, as an exciting cause of catarrh may be mentioned the scrofulous and other dyscrasiæ.

When properly treated, the prospects of recovery are good but relapses are frequent and much depends upon the extent to which the process has extended, whether there be hypertrophic changes in the membranes or not, whether there are polypi present or whether there be closure of the eustachian tube.

It is the matter of treatment which most interests us and here time and patience both upon the part of the physician and the patient is a *sine qua non*. Often the success of the treatment will depend almost wholly upon the

persistence and regularity with which it is pursued. In order to fulfill the promises of permanent benefit or cure, there must be regularity of attendance upon the part of the patient. He should be seen for a time daily—the frequency of his visits not to be dependent upon the progress made from day to day or the relief of his urgent symptoms but upon his ultimate recovery.

There should be, of course, a proper recognition of the cause of the trouble in each individual case whenever possible, and efforts should be made to remove this.

Of prime importance in the treatment, I would urge cleanliness—not secured by the nasal douche, nor the spray atomizer, but by the inhalation of medicated steam from boiling water.

For this purpose "Maws' Double-Valved Inhaler" will be found very useful. The water should be boiling and the temperature regulated by the use of the alcohol or gas lamp. In the absence of Maws' inhaler an ordinary copper or tin vessel filled with boiling water and enclosing a suitable bottle will be found very useful. The bottle should contain the medicated fluid, and have a cork with two openings. Through one of these openings should be passed a tube extending almost to the bottom of the bottle. To this tube should be attached, by means of rubber tubing, a suitable mouthpiece. A spirit lamp placed under the outer vessel will serve to keep the water at the proper temperature. The patient is directed to use this inhaler from twenty to thirty minutes daily, taking about fifteen inhalations to the minute and blowing the warm air out through the nostrils. I have found eucalyptol a valuable agent, adding from 15 to 30 drops to each eight ounces of boiling water. North Carolina tar and the comp. tinct. of benzoin are equally effective. The two latter are used in about the same proportion, varying the quantity to suit the taste of the patient.

The first effect of the heat is upon the sensory nerves of the throat, posterior and anterior nares—an impression of warmth. The peripheral vessels dilate and admit into them a larger amount of blood. The circulation being more rapid and the peripheral vessels containing more blood, a more active metamorphosis of tissue takes place. Afterwards the tension of the vascular system is lowered and absorption becomes more active and the sensibility of the nerves of the nose and throat are diminished. More than this is accomplished! The mucous membrane is thoroughly cleansed and prepared for the reception and absorption of medicines.

Following the use of the steam there should be an application of powder or ointment. Powders are preferable where the secretion is very profuse. The following combinations applied by means of the De Vilbiss powder applicator soon lessen the excessive discharge and after a time restore the membrane to its normal state:

℞ Camphoræ, ʒ i,
Iodol, ʒ ii,
Tannic Acid, gr. iv,
Acaciæ, ℥ i.

or

℞ Morph. sulphatis, gr. i,
Pulv. belladon, gr. x,
Iodol, ʒ i,
Acaciæ, ℥ ss.

℞ Hydrarg bichloridi, gr. j,
Acidi salicylici, ʒ ss,
Acidi tannici, gr. xx,
Pulv. sacchar, alb., ℥ i.

℞ Pulv. amyli,
Tr. benzoini,
Acidi benzoici, ää ʒ iiss.

M. Dry and sift.

In atrophic rhinitis the use of powders is not so plainly indicated as where the parts are soft and absorptive. In the application of powders and ointments, the aim should be to reach every portion of the throat and nose. The use of ointments will often be found particularly soothing and pleasant and as a rule patients will express a preference for them. The applicator armed with cotton and dipped into the particular ointment selected should be passed well up behind the soft palate and afterwards along the floor of the nostril into the posterior nares.

The following formulæ will be found suitable and can be changed as necessary:

℞ Morph. acetatis, gr. ii,
Acidi tannici,
Iodol, ää ʒ ss,
Vaseline, ℥ ss.

℞ Hydrarg flav. sulph., gr. ii,
Vaseline, ℥ ss.

℞ Iodol, ʒ i,
Acidi boracici, ʒ ii,
Aci tannici, ʒ ss,
Vaseline, ℥ i.

℞ Resorcin, ʒ i,
Vaseline, ℥ i.

It is important that the patient should not go out into the cold air immediately after taking the inhalation as there is danger in such sudden changes of temperature following this treatment. Much good may be expected also from the use of electricity. Either the galvanic or the Faradic current may be used to advantage. If the object in view be to reduce the thickened

membrane and bring about additional absorption, the galvanic current should be used. A slender probe, insulated to its tip and attached to the negative pole should be gently passed along the floor of the nostrils and back into the naso pharynx. A very mild current should be used, and no pain inflicted. A current from two LeClauche cells, gradually adding a cell until four or five is reached, will usually be found sufficient.

These applications should be of short duration. The action of the electrical current (REMAK & ERB) is: *a.* An increase of absorption produced by dilatation of the capillary blood-vessels and lymphatics, an increased capability of tissues for an imbibition of fluids, changes in the dissemination and nutrition of nerves and change in the molecular arrangement of tissues. If the current be used for the purpose of decreasing irritability, the positive pole should be used.

Benefit will be found to follow the application of the galvanic current through the cheeks near the base of the nose. The electrodes should be thoroughly moistened in warm water, and a current from seven to ten cells passed for a few minutes. If it be found desirable, the faradic current may be employed in the same manner.

A weak faradic current applied in the manner described before is often followed by gratifying results.

Finally, determine what indications there are present for constitutional treatment. This point is too often overlooked. If there be any catarrhal diathesis present, or any scrofulous condition seek to overcome it. In this connection cod-liver oil and the iodides assume an important part.

The hygienic measures should have reference to the warding off of attacks of acute cold and for removing unhealthy conditions of the body which dispose toward them. Enjoin regular habits of life. Moderate out door exercise, with strict avoidance of damp or wetting the feet.

To the out-of-door exercise should be added daily or at least frequent bathing with water at a temperature that will avoid chilling. Above all should there be regular use of the flesh brush or crash towel. This is a most important point. It should be used vigorously for ten minutes morning and evening. Let the diet be plain and nutritious. Avoid indulgence in heavy meals. It is difficult to prescribe a particular diet. Much depends upon the patient's own experience and judgment. Care should be taken that the bowels are open regularly. This may be accomplished best by incorporating fruit with the diet, such as an orange before breakfast, or stewed prunes or apples with the meal. If this is not sufficient, the use of Rhamnus purshiana will be found efficient.

Finally, I would say that in recommending a plan of treatment for catarrh, I would hesitate in speaking too confidently of its merits, having in mind the fact that many methods of treatment have been recommended in the past few years, all of them having peculiar merits of their own to endorse them. However, the plan of treatment here recommended will present one or two points which have heretofore been too little noticed and which, if observed, will be justified by the results accomplished.

I have avoided the surgical treatment of this affection for the reason that it is a subject of sufficient importance for a special paper, and also for the reason that I believe in the majority of cases, a treatment such as is outlined here will prove sufficient. There is abundant reason why such a course of treatment should be pursued. It is only by early and persistent attention to the indications in each case that the disease can be arrested and serious results avoided. Hence the necessity for the thorough acquaintance on the part of the practitioner with the early symptoms and the immediate application of such remedies and means of treatment as are most comfortable, efficient and unobjectionable.

CLINICAL NOTES FROM PRIVATE PRACTICE.

ON SYRUP TRIFOLIUM CO.

DR. C. SAWYER, of Auburn, New York, reports the following cases illustrative of his experience with syrup trifolium co. in syphilis:

CASE 1.—J. K., "white," aged fifty-five, duration of disease, sixteen years. Symptoms: indurated bubo. Commenced using compound December 28, 1888; has taken two bottles with some improvement; was largely dosed with iodide of potassium.

CASE 2.—E. P., "white," aged forty-nine; duration of disease, twenty-five years; symptoms, ulcerative pustular eruption on head and neck; commenced using syrup trifolium compound December 25, 1888; has taken one bottle, with no apparent improvement as yet.

CASE 3.—P. G., white, aged twenty-five years; duration of disease, five years; tertiary syphilis; symptoms, ulceration of the lymphatic glands of the neck; has taken one bottle with considerable improvement.

CASE 4.—G. R., white, aged thirty-six years; duration of disease, ten years; symptoms, syphilitic eczema; commenced using syrup trifolium compound January 5, 1888, with very marked improvement.

CASE 5.—J. O. K., white, aged thirty-one years; contracted disease in 1874; had chancre and bubo; has been under treatment since January 7, 1889, with syrup trifolium compound for syphilitic eczma with some improvement.

SYRUP TRIFOLIUM CO. IN HYDROCEPHALUS.

Dr. S. W. Clark, of Oskaloosa, Ia., reports the following case:

On February 7, I attended Addie T—, in labor. At first the infant appeared healthy; soon after the parents told me the child's head was growing too fast. On March 10th, I was called to see the child and found the parietal bone separated 1⅜ inch. The frontal and parietal bones separated 1½ inch at the anterior fontanelle. The child was emaciated; had the characteristic cry and facies of an hydrocephalic child. I put it on syrup trifolium compound, 5 gtt. three times a day.

The child began to improve from the first, and after about three months was as healthy as could be desired. It had no other treatment whatever.

ON THE ADMINISTRATION OF PICHI.

Dr. C. E. Nash, Little Rock, Ark., sends the following notes on the administration of pichi:

This remedy, after an employment of only a few years, has gained an enviable reputation in the treatment of a number of urinary affections, in nephritis, cystitis, acute gonorrhœa, vesical irritation, etc. Its habitat is South America, and since its introduction it has gained many enthusiastic admirers both here and in Europe. An examination of its constituents indicates that the activity of the drug may be referred principally to a bitter resin, which is not abundant, a volatile oil and perhaps also to two other principles which however exist in only moderate quantities, viz: æsculin and a body having the properties of an alkaloid. Its action is that of an urinary diuretic and sedative, besides exhibiting also undoubted antiseptic properties, these latter being shared by other oleo-resins.

Owing to the large amount of resinous matter in a necessarily alcoholic extract, if the latter be mixed with aqueous liquids, a considerable quantity of the resin will separate in clots which would of course impair the efficiency of the remedy.

In searching for a suitable vehicle the writer finds that mucilaginous or syrupy liquids should have the preference and if possible avoiding saline ingredients as these have a well known disposition to separate resins, in like manner as they do soaps, from solution in form of a curd. The most eligible vehicle however for the fluid extract is glycerine which appears to be a fairly good solvent as when the mixture is diluted with water prior to administration, the sparingly soluble resins are suspended in a state of extremely fine division.

Many inquiries have been made for a form in which this remedy could be used hypodermically but the difficulties in the way are apparently insurmountable, owing, 1st: to the sparing solubility of the active ingredients in aqueous fluids or such as are suited for injection, and. 2nd: The amount of the dose.

A most important feature should here be borne in mind, and that is, the effects of the remedy must to a large extent be considered local, just as in the case of cubebs or copaiba, and that the hypodermic method would certainly be an extremely roundabout way of bringing the remedy into contact with the surfaces affected. It could reach them at best in a very attenuated form. Should any of our readers have the courage to try it in hypodermic form, it should be remembered that glycerine if used as a solvent, is itself irritating unless entirely pure and slightly diluted with waer. A solution for trial should also be carefully filtered through absorbent cotton after standing at least 24 hours, to separate any suspended waxy matters. For convenience of administration, Messrs. Parke, Davis & Co. have recently issued a new preparation of this drug which appears quite eligible, namely a powdered extract. Owing to the readiness with which this can be given in capsules (a very desirable form for administration) pills, or even suspended in water or milk the taste may be, to a considerable degree obviated. The dose of the powdered extract is from five to ten grains and as the active principles are here presented in a minutely divided form, exposing a large surface for solution to the fluids which largely find an exit through the renal tract, it would naturally commend itself as an improvement worthy of trial.

PICHI IN CYSTITIS.

Dr. E. L. Mooney, of Syracuse, N. Y., gives the following notes of a case treated with pichi:

H. W., æt. 34, came to me on February 11, 1888, with the following history:

Five years ago patient contracted gonorrhœa from which resulted a stricture and subsequent cystitis. Was operated on for stricture and cured, but was treated almost continually for cystitis from time of its origin until he came to me, at that time suffering from pain after and frequency of micturating.

I immediately put him upon injections of nitrate of silver for a short time, and then followed with fluid extract pichi until the expiration of two months, when patient was discharged entirely cured.

ALVELOZ IN EPITHELIOMA.

Dr. Geo. C. Irwin, Sabetha, Kas., reports his experience in the treatment of epithelioma with alveloz, he says:

I used alveloz in a case of epithelioma of about a years standing, which had been pronounced as such by several prominent surgeons. The case was that of a patient whose mother's arm I assisted in amputating on account of a

recurring cancerous growth, and who ultimately died from the effects of the disease.

I applied it as directed, every third day, using cocaine ointment as a dressing, and at present, after treatment of a month, there is no signs existing of the disease.

ERGOT IN URETHRITIS AND CONJUNCTIVITIS.

DR. T. A. PATRICK, St. Ignace, Mich., has had a favorable experience with ergot in urethritis and conjunctivitis. He writes as follows:

Liq. ergot normal I have used (in strength 1 to 4 distilled water) as an injection in several cases of specific urethritis, third stage, and also in simple and traumatic conjunctivitis with very gratifying effect.

PHYSICIANS' FEES.

BY C. BARLOW, M. D., EATON, ILL.

The writer has read with much interest all the articles relating to physicians' fees which have appeared in the MEDICAL AGE. The article on medical paupers in a recent issue of the AGE is not overdrawn, as every physician of considerable experience knows. As a rule, country doctors only collect from one-half to three-fourths of their earnings. Sixty-five per cent. is perhaps a fair estimate of the average collections of the physicians of this county. The low fees and pauper practice render it absolutely necessary for our physicians to adopt the strictest economy in order to make ends meet. As a result their usefulness is materially limited and the public suffers, perhaps more seriously than the doctors themselves. We can only be accomplished physicians in proportion to the amount of funds we have to spend for journals, books and instruments, and other educational necessities; and we can no more do good work without them than a mechanic could do without tools. Then it follows that the public is interested in this matter as much as the profession is, and doubtless would assist in procuring the proper remedy if it could only be made to realize the necessities of the case. As reformations are only brought about through the efforts of influential citizens, I suggest that we commence reforming the minds of the laity, on the momentous question of physicians' fees, through the pockets of the wealthy and influential class of citizens. They do not want ignorant physicians to attend, and, of course, will not object to paying fees that will enable their doctors to keep themselves thoroughly up to the times.

In order to accomplish this, I would suggest thorough organization of physicians and an increase in fees of from thirty-five to sixty-five per cent., as the case would warrant, so that the full amount of fees charged under the old system could be collected under the new. My reason for adopting this plan is simply this: Under the present system, the physician who refuses to visit a patient because he knows he will get nothing for it is nearly sure to lose some of his good paying customers as a result. Many wealthy people in the country will not employ a physician who withholds his services from the poor, or from the intermediate class who can, but will not, pay their bills. Now, I propose to request the aforesaid wealthy citizen to pay the bills, especially for the latter class of non-paying customers, until he expresses a willingness to assist the doctor in procuring the enactment of such laws as will make it possible for the physician to collect a reasonable fee from all who are able to pay, or until they (the wealthy class) can realize the doctor's dilema and learn not to interfere when the doctor desires to collect a small fee from the dishonest man who can and will not pay his honest debts.

The public must be taught that the physician is also a business man, and as a matter of business proposes to collect money enough to support his family and purchase the necessary outfit to enable him to keep up with the times and thereby give value received for the emoluments derived from professional services. After two or three years dilligent instruction of this kind, the good influential citizens would doubtless realize the situation and would willingly assist us in further educating the class who can but will not pay their bills.

The worthy poor, I think are entitled to our services free of charge, and as this class of patients demand a good deal of our time and money, it is another argument in favor of collecting from all who are able to pay.

I would also suggest the further revision of the fee bill. As a rule we do not charge in proportion to services rendered. Instead of charging so much a visit in all cases, regardless of the importance of the case, we should charge more in proportion to the value of services rendered. When we bring to a successful issue an almost hopeless case, we should make a reasonable charge in addition to the regular fees. In surgical and obstetrical practice where life and limbs are saved we do not charge enough. In ophthalmic practice where we restore and preserve the sight of the patient, we do not charge enough. In fact we do not charge enough for important services of any kind. We visit one man with pernicious fever and save his life, and visit his neighbor for a slight indisposition and charge both alike. There is no equity about such a system of charging. It does the man who was not very sick an injustice and tends to degrade the profession.

When we compare our charges with the charges made by gentlemen of the legal profession we can see how ridiculously small they

are. When a man is brought before a court to be tried for his life he will not object to paying his legal adviser from one to ten thousand dollars, as the case may be, while the same man after having his life saved by a physician would be likely to object to a fee of ten dollars.

It is a fact that men will pay large fees to lawyers simply to gratify a revengeful disposition and grumble at the small fee of the physician who saves their lives, We should charge in proportion to services rendered, and have it understood that our fees are due as soon as services are rendered and if it is not paid in a reasonable time, one year at most, we should settle the account and take a note with security if necessary. If our customers persist in keeping our money we should insist in demanding security and interest. We could afford to wait if we could get eight per cent. interest on our money. I do not advocate exorbitant fees but reasonable ones, and that these be collected. We could afford to practice for the worthy poor for nothing if we could collect our fees from all who could pay if they would, and live fairly well as the fee bill now stands. It is a fact that the fees collected by country practitioners are inadequate to sufficiently remunerate the practitioner who has had a thorough training preliminary to the study of medicine. We must educate the people and if the line I have marked out be followed closely, the time is not far distant when it will be possible for medical men not only to live but to lay something by for a rainy day.

Correspondence.

SALIX NIGRA.

I noticed a very instructive and able article in the AGE of Jan. 10th, from the pen of DR. F. T. PAYNE, of Commanche, Tex., upon the subject of Salix Nigra, as a sexual sedative, to which I wish to add my mite of testimony. I have prescribed the tincture made from the blossoms or pusseys of this shrub, as a remedy to control undue sexual excitement, and where there were violent out-bursts of passion, due to that cause. I have employed it in cases of gonorrhœa, to allay the morbid excitement so often noticed as characteristic of this disorder. Since noticing the article mentioned by the doctor, that appeared in the year 1885, I have tested its action in those heretofore difficult cases of ovarian irritation, and have obtained very good results, and value the medicine very highly.

It is certainly a remedy well worth further study and investigation. There is another remedy whose action in the direction of relieving these cases of sexual excitement, is similar, which is the Staphisagria. When it is given in the proper doses, it becomes a valuable agent. While as it is used by many physicians it is given in too large doses, or often, as is the case with other indigenous remedies, we get a poor article, and a failure in obtaining the desired results, is charged to a mistaken idea of whoever recommended it, rather than to the manufacturing pharmacist from whence the trouble came.

While I hold the highest regard for DR. PAYNE, I must object to the idea of this being a new remedy, and must insist on a priority of discovery in favor of JOHN KING, M. D., of Cincinnati, Ohio. Any reader of this article may verify these statements, by looking in the American Dispensatory, edited by the above named DR. KING. It is spoken of in an appendix, under the title of White Willow, which says Salix Nigra—Black or Pussy Willow—is a tree that grows to the height of fifteen to twenty-five feet (here follows a full description together with the various conditions for which the bark has been used). A decoction of the black willow buds or aments, is useful in gangrene, taken internally, and applied locally; and drank freely it proves a powerful anaphrodisiac, suppressing venereal desire for a long time, and it is highly recommended in the treatment of spermatorrhœa."

This quotation comes from the American Dispensatory, of 1860, p. 736. The same thing was contained in a volume that was very old (of the same publication) which I disposed of, and which was my authority for prescribing the remedy many years ago. I now have several pounds of the tincture that I made in April, 1883, when living in the State of Ohio.

In the spring of 1881 or 1882, I made some of the tincture, for "one of the boys" who had been "out amongst them" and was suffering the torments of the hereafter, from chordee.

I do not write this from any motive of self interest in the matter, but in defense of a man who is now too old to fight for himself, a man who has done more to bring out a knowledge of our indigenous remedies, than anyone else who has ever lived.

There are too many cases that come to notice, of new and startling discoveries, of therapeutic agents, that are upon record as being used for the same purposes before the alleged discoverer was born. Take for instance a recently published article upon the superior virtue of the cactus grandiflorus as a cardiac tonic, which claimed it to be a recent discovery. Then turn to the writings of homœopathic physicians, and also eclectics, thirty years ago and read the same thing.

So it was with the cimicifuga, and pulsatilla as a remedy for dysmenorrhœa, that appeared in a medical journal of less than two years ago, as a newly found specific of great power. Look at the journal articles, back in the early fifties,

regarding this as an emmenagogue (see Eclectic Med. Journal, 1849). BARTON in 1801, mentions it as being in extensive use by the Indians, under the name of squaw root. Not that the root resembled the appendix of an Indian, but because it was used by them in the treatment of diseases of the female reproductive organs.

I credit DR. PAYNE with the introduction of the Salix Nigra in the treatment of cases of irritation of the ovaries, and nothing more. I believe we should render to each man his just dues, be he a regular, an homœopath, an eclectic or a layman.

E. R. WATERHOUSE, M. D.

ST. LOUIS, MO.

MATERNAL IMPRESSIONS.

EDITOR MEDICAL AGE:

Dear Sir.—Here are a few remarks on an article in 10th Dec. number of the AGE on Maternal Impressions, Influence of Imagination on the Fœtus in Utero, and Maternal Frights, which are spoken of as one and the same thing, which surely is not true.

The chapter of events in this line was opened coeval with the existence of the human race. All that has happened has not been recorded; all that will happen is not likely to be; much is recorded, and that much denied. The chapter is only written in odd jottings at intervals, and recorders and deniers make room for others. The record is filling up and, true or false, will only be finished when our race shall cease to multiply.

The matter is not taken from musty parchments; it is the story of the mystery of God in nature, taken from the lips of the mothers who are the subjects of this mystery in operation, and after facts.

The theory relates to a mental electric shock, accidental, involuntary, invisible, immaterial, impressing the exact picture upon the mind or brain of the fœtus as the mother beholds it, which changes its mind and body, or if merely an embryo, hinders its proper development. The act is instantaneous, quicker than taking a photograph. The sensation of transmission from the mother's brain to that of the fœtus may be to her unappreciable, but instanter she has the warning that the dread message is delivered, whatever its import may be. The modus operandi is mystery impenetrable. Clever headed as well as well-educated mothers have described to me with clearness the difference in the intra uterine life of a frightened fœtus and natural ones. Queer that a belief 7,000 years old in such grievous mental laborings, with untold numbers of frightful births, should be unreal. The writer assumed much to overturn all with a stroke of his pen. Did he practice where mind and matter meant the same? Is not the article so contrary to all obstetrical history as to bear no relation to science or nature? These agree, whoever objects.

No man has any idea of maternal exercises from conception to delivery. In describing such from a mother's lips, let it be done with sense and gravity. Fleeting impressions are not here intended. Powerful imaginations with mental serenity often makes genius; read of Napoleon's mother and her soldier son. Longings and mothers' marks are real. I knew a man with a penis and testes just above his forehead. But who understands. Mortal fright is not meant, it is certain death. I never saw but one case of this kind recover, that by the aid of the lancet. In this the venous blood was black, thick, nearly void of fluidity; loss of strength and appetite; great coldness; deathly pallor; trembling; involuntary weeping; a red circle the size of a silver dollar on each cheek. Both child and mother died. Query? How did the blood of the placenta and venous blood mingle with the arterial, as stated at inquest. It is a lesser fright which produces idiots and monstrosities. Four well educated ladies were enciente at same time (the first time), living in same district. In turn each answered the knock of a fearfully deformed beggar woman. Their children were exactly like her. Only one could walk or speak; mothers died. A lady here saw a butcher take the viscera from a hog. Her child had no abdominal covering; it lived some time. The folks who could not describe their feelings to the doctor understood physiology like a nurse who told me of this case over 50 years ago: A young woman slept in a hay field; a snake slid down her throat; the child was born with the snake around its neck. She was present, so she said.

Respectfully, etc.,

DR. WM. DUNSTON.

RIPLEY, MICH.

LYING PROFESSIONALLY.

It would seem that my article in the AGE of the 25th ultimo has by some means been misconstrued and DR. FLAGLER, of Imlay City, appears to be one of the number who are in doubt as to whether I deserve pity or censure, and also whether I "was really in earnest or merely jesting."

Now, I can assure the doctor that I was in dead earnest, I never joke, seldom smile, and never laugh. This statement I can prove by all the older members of our State Medical Society. I never was more in earnest than when I wrote those solemn truths.

The doctor's "pity" I don't need. He better reverse his tear jug and shower himself. His "censure" pains me.

The doctor speaks of his professional juvenility—which was unnecessary—and protests his G. Washington truthfulness thus far along the

pathway of physic. Now, in so far as George was unable to tell a lie, he was a moral cripple. I would'nt be deprived of the privilege of lying for anything, and when the doctor has been jostled about long enough he will doubtless become an accomplished professional liar like myself—and many others whom I might name and a successful physician.

When he arrives at that state of perfection he will not tell a wanton lie that will be sure of exposure shortly, but a lie so delicate and refined that it just conceals the truth which he seems to be telling, and hides its hideousness. I tell you "there's millions in it."

I started out just as the doctor has, and stuck to it until I became convinced that it was my duty to lie occasionally. Understand, this professional lying is a luxury and should be like all other luxuries, used sparingly. Don't make a whole meal of it. Lie just enough and then stop.

The doctor seems to fear for my hereafter, but he needn't. I lie religiously, and it don't harass my wayworn conscience a particle.

Finally, since the doctor thinks that I have libeled my confreres, I will say to any doctor feeling so aggrieved, if he will send me his photograph I will frame it and set it on the piano in my office.

E. B. WARD.

Feb. 15th, 1889.

SPINAL SCLEROSIS.

Editor MEDICAL AGE:

DR. HENDERSHOTT presents a case, in the MEDICAL AGE of February 11th, for diagnosis and treatment. My diagnosis is, from his brief account of the case, *spinal sclerosis*. My treatment would be hot water to the spine; potassium iodide and fluid extract ergot internally. Electricity may do good, and I would suggest its use; also silver nitrate cautiously given and its effects watched.

If the remedies named fail, after a fair and thorough trial, I would try phosphorus and belladonna. If the patient is pale and anæmic, cod-liver oil would not be amiss.

If my diagnosis is correct, strychnine would do his patient harm.

If these suggestions are unsatisfactory to DR. HENDERSHOTT, let him please give a complete history of his case in all its respects.

Respectfully,

J. F. CAMPBELL, M. D.

LANSING, MICH., February 15, 1886.

ANOTHER DIAGNOSIS.

DR. HENDERSHOTT'S case, for which he wishes a diagnosis, is without doubt one of gangliasthenia. Several of the ganglions of the great sympathetic are in a profoundly asthenic state, all are, however, to some extent implicated. The nerves of sensation and of motion which enter into, and eradiate from these ganglions also partake of this morbid depression.

As to consequence, we have paresis of the vaso-motor nerves, which causes the œdema and the nerves of sensation and of motion being in the same state, cause the hyperasthesia and erratic lightning neuralgic pains, and also the spasms of the muscles of the legs.

Treatment, Internally.—Give ammon. bromidi in 5 to 10 grain-doses three times a day with 2 grains of sulph. quinia each time. Prevent constipation with cascara sagrada. Externally, use oil of mustard liniment, 30 drops to the ounce of alcohol, as a counter-irritant, to be applied the whole length of the spine—say four inches wide, and left on long enough to redden the skin well each time, morning and evening.

The battery may be of use, but should be used with care. If it causes muscular spasms, even slight, it should not be used.

J. HOKE, M. D.

CORDOVA, ILLS.

SPINAL HYPERÆMIA.

DR. HENDERSHOTT in the MEDICAL AGE of Feb. 11, communicates a case for diagnosis. His case impresses me as being a case of spinal hyperæmia instead of anæmia, and I should certainly expect improvement upon HAMMOND'S treatment for hyperæmia, viz.: normal fluid ergot, xv, xx gtt. doses thrice daily or oftener, and bromide of potassium, grs. x-xv as often. Possibly at this late stage there is localized meningeal trouble requiring a thorough treatment of the iodides, with counter irritation if it can be localized.

F. J. ROSENBERG, M. D.

PLUM CREEK, NEB

THE NEW SUBSTITUTE FOR IODOFORM.

To the Editor of the MEDICAL AGE.

DR. LANDIS, of Lancaster, reports five cases of lacerated wounds, treated with thioresorcin, the new substitute for iodoform. I should like to know if any of your readers have had any experience with the drug, and what results have been obtained if such should prove to be the case.

LUIGI G. DOANE, M. D.

N. Y. CITY, February 18, 1889.

Regulating the Sale of Milk.—The Philadelphia Board of Health proposes to regulate the sale of milk in that city. Their efforts should be followed by all Health Boards. Since infected or impure milk is conceded to be one cause of communicating diphtheria, tuberculosis, typhoid and scarlet fever, not to speak of intestinal diseases of infancy, no measures can be considered too rigid to secure its purity.

The Medical Age.

A SEMI-MONTHLY REVIEW OF MEDICINE.

B. W. PALMER, A. M., M. D., Editor.

—Published By—

GEO. S. DAVIS, Medical Publisher, Box 470.

DETROIT, MICH., FEB. 25, 1889.

Editorial.

SOME VALUABLE CONTRIBUTIONS TO THE LITERATURE OF DIGESTIVE FERMENTS.

Notwithstanding the importance and large consumption of the digestive ferments the scientific literature relating to the character, action and application of these agents has hitherto been very meagre.

The recent improvements in pepsin, the discrepancies between the statements of different manufacturers, the confusion as to proper tests, and the real importance of these agents has concentrated on them of late the interest of physiological chemists and much has already been accomplished in the direction of determining the digestive power and purity of various pepsins, the mode of action of this ferment and its incompatibilities.

One of the latest and most valuable contributions to the subject is a scholarly article by R. H. Chittenden, Ph. D., Professor of Physiological Chemistry in Yale University, entitled "Observations on the Digestive Ferments" which was read before a Section of the New York Academy of Medicine, Jan. 23, '89, and published in the Philadelphia Medical News, Feb'y 16, '89. This gives an able and comprehensive review of the whole subject, of the investigations of other observers from the discovery of the digestive ferments to the present time and of the experiments of the author, from which he reaches the following conclusions:

"As a final result then we may consider the true proteolytic power of the following pepsins compared with one of the highest digestive power to be as follows:

		Relative Proteolytic Action.
1	Parke, Davis & Co.'s Pepsinum Purum in Lamellis	100
2	Fairchild's Pepsin in Scale	52
3	Scheffer's dry Pepsin, concentrated.	48
4	Jensen's Crystal Pepsin	35
5	Ford's Pepsin in scales.	32
6	North's Pure Pepsin	16
7	Boudault's Pepsin	14
8	Royal Chem. Co.'s Pure Pepsin	9

"As to the actual strength of these preparations, 1 milligram of the strongest pepsin converted into soluble products 198 milligrams of the pure dry albumen, which would be practically equal to 2000 parts of fluid egg-albumen."

Among other valuable articles on pepsin recently published we may mention those by Dr. John R. Winslow, Lecturer on Chemistry Woman's Medical College, Baltimore, Md. entitled "Pepsin and Its Incompatibilities, with Exhibition of Tests" and published in Maryland Medical Journal, Feb'y 16 '89; "Pepsin in Surgery," by H. B. Douglass, M. D., in N. Y. Medical Record, Dec. 22, 1888; "Pediatric Points and Pickings," by Dr. I. N. Love in Weekly Medical Review, Jan. 26, '89, "Digestive Ferments," by J. Leroy Webber in Pharmaceutical Record, Feb'y 4th; "Comparative Pepsin Testing," by F. A. Thompson, Ph. C., in Druggists' Bulletin, Sept. 1888.

The use of pepsin has been extended to local application in diphtheria, membranous croup and in surgery where the digestion of a false membrane or abnormal tissue growth is desired and this agent is likely to play an important rôle in the future in the therapeutics of these diseases as well as in indigestion.

Those of our readers who desire to inform themselves of the latest discovered facts regarding improvements in pepsin, its incompatibilities, best methods of administration and how to test it should correspond with the manufacturers whose recent investigations have led to the production of the highest quality of pepsin yet produced—Mess. Parke, Davis & Co., —who announce that they will send literature on Digestive Ferments and sample of their Pepsinum Purum in Lamellis to physicians free on request.

A TRIBUTE TO THE COUNTRY PRACTITIONER.

We have always had a profound admiration for the country doctor, who must become in time the true specialist since his knowledge of each disease becomes modified and perfected by his knowledge of all and the variety of conditions with which he must cope, unaided by the specialist, must give him in time a degree of self-reliance and skill which admirably fits him for the emergencies of practice.

We are lead to this train of thought by the editor of the International Journal of Surgery, who thus holds up the country surgeon to admiration and recounts his achievements:

As we look back over the triumphs achieved by medicine over disease, we are struck with the fact that some of the great conquerors in that field have been the patient, hard-working men whose services have been rendered in obscure places, and whose names, though worthy of enduring fame, have made but a small mark in the annals of our profession. More especially, we believe, has this been true of some of

our American country surgeons. McDowell's first ovariotomy was one of the great battles won and lost by a sturdy laborer in that field. The ingenuity, the skill, the courage brought to bear by some of these men is a matter of wonder, when we consider the limited means at hand, the lack of proper apparatus, of skilled assistants, of competent nurses, under which they are compelled to work. We have records of tracheotomies done with a penknife, by the dim light of an oil lamp held in the trembling hand of a terrified mother. Major arteries have been ligated in a farmyard with the assistance of a ploughman. Obstetrical emergencies of a nature apt to strike terror in the hearts of the best accoucheurs have been surmounted singlehanded, while the steady old nag at the door awaited his master, ready to resume the long, weary round of widely scattered rural homes.

No world-wide reputation is in store for the country doctor, no large rewards such as are from time to time attained by those city men whom the French are fond of calling Princes of Science. Their fees are as small as their services are often great, and the weary hours spent by the bedsides of poor patients are frequently remunerated by nothing more than gratitude. And yet some of these humbler workers have in the time of need proven themselves to have been made of the adamantine metal whence heroes are built. Some of their thoughts have crystallized into gems which all have admired, some of their deeds would have brought honor to the best equipped surgeon of a surgical centre, and have shown them to be the peers of the greatest. Men everywhere exhibit as many varieties as do the leaves of Autumn time, and we do not mean to exalt the country surgeon above his city brother, but we wish to recall the fact that honor is often due to him, that he serves a useful and noble purpose, and that we are not unaware of the grand work so often done by him.

The country doctor, however, enjoys some advantages which at times makes his lot a desirable one, as compared with that of the majority of city physicians. His work is apt to be more healthful than that of the weary climber of tenement house stairs. His patients are nearly all his friends, while his importance in the community is great and recognized, and his advice is commonly asked upon many subjects which, though not always connected with his art, are in the province of any wise man to decide upon. Though anything more than a fair competence is rarely achieved in the country, there are a far smaller number of famishing doctors among the country practitioners than are to be found among the city toilers. It is well known that in this country there are a large proportion of graduated men who do not achieve, in the cities, a bricklayer's daily wages, and who are compelled to wait many years ere they reach even this low standard. A country doctor's expenses are fewer, he is often more of a prophet in his own country, and his achievements are frequently such that he may well be satisfied with his work and proud of his calling.

THE HABITS OF BRAIN WORKERS INIMICAL TO HEALTH.

Popular literature is just now preaching the gospel of proper physical development as a means of relief from the ills which flesh has hitherto been heir to. It is a lesson which brain workers should heed.

In a recent discussion of the ailments of distinguished brain workers in the London Lancet it is conceded that they have had more than a moderate share of human ills, and often to have achieved their best work in spite of acute physical suffering or profound mental depression. The life of Carlyle was one long fierce fight with the demon of dyspepsia. Darwin was forced, time after time, to suspend those indomitable labors which have changed the face of science and rendered this epoch forever memorable, in order to recoup his shattered physical energies by rest and change. The life of George Eliot is full of the tale of headache and languor, the struggle of a great spirit with the infirmities of a frail body. John Stuart Mill is another instance of the union of splendid intellectual power with feeble physique, and among living writers it would be easy to mention many more. Is such a conjunction merely accidental, or due to inheritance, or to some imprudent and abnormal mode of life?

The most frequent fault is probably excessive application to work. The writer or scientific worker, if he devotes himself wholly to his pursuits, is to a large extent free from those interruptious to labor, those jolts and jars which are part of the fate of professional and commercial life, and which, however disagreeable, are probably in the long run a great safeguard to health. A Newton, a Darwin, or a Carlyle in his study works on hour by hour. The most intense and fatiguing of toils is pursued almost uninterruptedly, food is neglected, and the claims of exercise and sleep are but imperfectly admitted. It would be a miracle if under such circumstances health remained unimpaired.

There can be no permanent vigor for brain-workers unless three conditions at least are fairly met. Fresh-air exercise must be regularly taken, food must be carefully selected, and sleep must not be unduly curtailed. As regards exercise, some professional authors make the wise rule of taking at least two hours in the open air daily. This is probably a minimum, and might be prudently exceeded. The form of exercise must be left to the individual

taste, but riding has always been a favorite mode with the class whose needs we are discussing.

The question of food for brain-workers opens up a wide and somewhat debatable topic, but some rules are clear. The brain-worker must live sparingly rather than luxuriously, he must prefer the lighter classes of food to the heavier, and he must be very prudent in his use of alcohol. Tobacco and tea are apt to be favorites with him, and their immoderate use may require to be guarded against. The brain-worker will do well often to go supperless to bed.*

It is a nice question whether he needs more or less sleep than other men. It might seem a *primâ-facie* probability that the hard-worked brain would need more than the usual quantum of sleep, but it is undoubted that a large proportion of men of genius have been very light sleepers. This was probably in some cases only their misfortune, but there seems some ground for the notion that more than a moderate indulgence in sleep is unfavorable to successful mental effort.

THE INTERFERENCE OF REMEDIES WITH DIGESTION.

The Dietetic Gazette for Jan. '89 publishes the results obtained by experiments designed to determine the interference of drugs with digestion. The subject is not an unimportant one though there yet remains much to be done to clearly elucidate it.

The Gazette says: It is evident that the accomplishment of perfect digestion requires not only a healthful state of the organs concerned, but of the nervous mechanism which animates and regulates their functions. When we consider on the one hand the intimate and delicate relationship which exists between the nervous and glandular systems, and how susceptible it is to mechanical, chemical or physiological disturbances; and, on the other, think of the properties of many of the drugs which we are accustomed to administer, we need not wonder at the disagreeable and even disastrous effects so frequently produced upon the digestive processes and organs. Now, it certainly is not in the line of curative treatment to interfere with the nutritive processes by thus striking at their very roots. There may possibly be instances where it is advisable to establish a tolerance of the, at first, intolerable medicine. But we think that such a procedure will be found to be generally only admissable and valuable in chronic and pretty folorn cases.

It is well known that some physicians have the knack of prescribing very tasty and attractive medicines, while others are notorious for their bulky and nauseous doses. A nasty remedy brings odium not only to the prescriber, but to the profession at large. By its bulk, its taste, consistency, and very appearance nausea, and even vomiting is often induced. This, to begin with, is all wrong; and we should only resort to such a drug when it has absolute properties of which it is important to avail ourselves, and where the patient has an especially "strong stomach," otherwise we do more harm than good by administering it. The stereotyped directions: "Take after meals," is not always right.

These remarks are suggested by common experience, and especially are borne out by the result of some comparatively recent investigations bearing upon this subject, and with which we all should become familiar.

Experiments dealing with the influence of medicines, beverages and condiments upon digesting mixtures have now been published by Fraser (Jour. Anat. and Physiol., Vol. xviii); Petersen (Lancet, 1886); Gluzinsky ("D. Archiv. f. Klin. Med."—xxxix); Roberts ("Dietetics and Dyspepsia" London: Smith, Elder & Co., 1886); Eccles (N. Y. Med. Jour., Dec. 11th, 1886); Fowler (Dietetic Gazette, July, 1887).

The results of these experiments clearly showed that of the great variety of drugs employed the effects of which in digestion were observed many markedly interfered with the digestive process—when given in appreciable amount.

One lesson of these investigations would be that those remedies known to delay or interfere with digestion should be given in that interval between taking food, when the digestive processes are most nearly at rest.

PHILOSOPHY AS A CARDIAC REMEDY.

The latest remedy commended for heart disease is philosophy. Its application is illustrated in the case of the late MATTHEW ARNOLD.

DR. J. G. KIERNAN recently read a paper before the Chicago Medical Society, on the Mental Symptoms of Heart Disease as Illustrated in the Case of MATTHEW ARNOLD. About twenty-five years before his death, we are told that the great apostle of culture contracted heart disease, in consequence of a rheumatic attack affecting the aortic valve. He was a man of a particularly amiable and even temperament, "coming from a well balanced English family who have learned to restrain their emotions." DR. KIERNAN thinks that MATTHEW ARNOLD'S long continued health was due in a great measure to his having adopted "a modified form of the quietist philosophy which was a survival of Buddhism." Devoting himself to studies in literature which made little demand

* By supperless is meant the omission of the meal which it is the custom in England to take at night just before retiring.

on the emotions, he reduced his malady within manageable bounds, and became the "apostle of sweetness and light." Of late years he appeared to have relaxed this restraint in some degree, and his rhythm was proportionately disturbed. Indulging in what DR. KIERNAN terms "horse-play," he attempted to jump over a gate to show a young friend his manly agility and died on the following day.

DR. KIERNAN'S paper has inspired the following from the British Medical Journal:

We agree with the writer of the paper and with DR. SUTTON, that complete command of the emotions might be the best thing for our merely animal life. Perhaps if we adopted the faith of Buddha, or became Stoics, we might be less subjected to nervous and other diseases, and live to an advanced age; but more Englishmen would be inclined to say with the poet, that

> We live in deeds, not years; in thoughts, not breaths;
> In feelings, not in figures on a dial.

And, looking back on our history, most of us would exclaim with the Laureate—

> Better fifty years of Europe than a cycle of Cathay.

Our emotions are to be educated not crushed out. Vegetating is not the life of Englishmen. And, much as MATTHEW ARNOLD insisted on quietness, meditation, and calm, he himself exclaims—

> Calm's not life's crown, though calm is well.

We all see in our practice how religion, which from a practical point of view might be spoken of as applied philosophy, tends to soothe the spirits and make men go easy over the rough ways of life. But we need not adopt either quietism or a "modified form of Buddhism," as DR. KIERNAN suggests, to achieve this desirable end. It would not be possible for any great number of Englishmen to extinguish emotion, and, in the words of MOLINOS "die to themselves and their senses." Soon enough will come to the most active of us, even to "those who have warmed both hands before the fire of life," the "years that bring the philosophic mind." It is not given to all of us to anticipate them.

TOO MANY ANTIPYRETICS.

The success met with in the introductian of new antipyretics, and notably antipyrine, has led to the production of many others of very little utility, which obtrude themselves on the attention of physicians and occupy no inconsiderable space in current medical literature and all to no purpose except we regard as such the exposure of their comparative worthlessness.

Among those newer antipyretics which we believe have failed to demonstrate their right to a place in the materia medica, we may mention phenacetin.

In the Deutsche medicinische Wochenschrift of December 13th and 20th, 1888, MAHNERT, of Graz, has, in a communication entitled: "Phenacetin from a Physiological and Clinical Standpoint," reported in the Medical News, given us the results of his experience with this compound. In the instances where he employed it to reduce temperature, the fall produced by it was very marked. Thus, in one case of rheumatic polyarthritis fourteen grains of phenacetin caused the temperature to fall from 102 2° to 97.8° in five hours, followed by a rise of 2.7°. The pulse tracings before and after the use of the drug, when compared gave no evidence of cardiac depression. In another instance a temperature of 102.9° was reduced in three hours to 98.6° by twenty-three grains, but rose again in five hours to 104°, and finally reached, three hours later, almost 104.3°. At this point the drug was used again in the same dose, and there ensued a steady fall of temperature to 96.8° in five hours, remaining at this point for one hour, when it began to rise again, and in two hours reached 104° once more.

The conclusions to be drawn from these studies on the action of phenacetin in fever seem to be that it is no better than any other pure antipyretic, and that it lowers temperature much more slowly than do most of the other members of the group.

The studies of HINSBERG and KAST, of Rumpf, and of many other accurate observers, both in this country and abroad, have, heretofore, frequently been pregnant with contradictions and failure, and while the drug has been lauded by continental writers, it has failed in England and America.

While research as to the properties of remedies for which therapeutic efficacy is claimed is to be commended, the physician cannot too soon drop from his list those which are superfluous or have failed to show their superiority over others already existing.

DR. OLIVER WENDELL HOLMES' GIFT TO THE BOSTON MEDICAL AND LIBRARY ASSOCIATION.

The readers of THE AGE have doubtless already seen the announcement of DR. HOLMES' generous gift to the Boston Medical and Library Association of his medical library of 968 volumes, containing many of the gems of medical literature.

At the dedication of the Association Hall only a short time ago DR. HOLMES in his own inimitably graceful way alludes to a scholar's relation to his books: He says:

"A scholar should not be in a hurry to part with his books. They are probably more valuable to him than they can be to any other individual. * * * Men talk of the

nerve that runs to the pocket, but one who loves his books and has lived long with them has a nervous filament which runs from his sensorium to every one of them; or, if I may still let my fancy draw its pictures, a scholar's library is to him what a temple is to the worshipper who frequents it. There is the altar sacred to his holiest experiences. There is the font where his new-born thought was baptized and first had a name in his consciousness. There is the monumental tablet of a dead belief sacred still in the memory of what it was while still alive. No visitor can read all this on the lettered backs of the books that have gathered around the scholar; but for him, from the Aldus on the lowest shelf to the Elzevir on the highest, every volume has a language which none but he can interpret. Be patient with the book collector, who loves his companions too well to let them go."

DR. HOLMES in presenting his books to the library association happily described his acquirement of some of the rare ones—comparing the acquirement of each to the birth of an infant—thus he says:

"Shall I ever forget that rainy day in Lyons, that dingy book shop, where I found the Aëtius, long missing from my 'Artis Medicæ Principes,' and when I bought it for a small pecuniary consideration, though it was marked rare, and really was très rare, the 'Aphorisms' of Hippocrates, edited by and with a preface from the hand of Francis Rabelais? And the vellum-bound Tulpius, which I came upon in Venice, afterward my only reading when imprisoned in quarantine at Marseilles, so that the 228 cases he has recorded are, many of them, to this day still fresh in my memory. And the Schenkius—the folio filled with casus rariores, which had strayed in among the rubbish of the bookstall on the Boulevard—and the noble old Vesalius, with its grand frontispiece, not unworthy of Titian, and the fine old Ambroise Paré, long waited for even in Paris and long ago, and the colossal Spigelius with his eviscerated beauties, and Dutch Bidloo with its miracles of fine engraving and bad dissection, and Mascagni, the despair of all would-be imitators, and pre-Adamite John de Ketam, and antediluvian Berengarius Carpensis—but why multiply names every one of which brings back the accession of a book which was an event almost like the birth of an infant?"

The example set by the distinguished, generous and lovable HOLMES is one that should stimulate others to contribute their share to the development in their midst of medical libraries which shall do honor to their founders, be of inestimable value to the medical profession of to-day and posterity, and advance the interests of the noblest of arts—Medicine.

THE LATE DR. JOHN C. DALTON.

PROF. JOHN C. DALTON, M. D., L. L. D., died at his home in New York city on Tuesday, Feb. 12th, at the age of sixty-four. He had been suffering for a long time from kidney disease, a recent operation for the relief of which was unsuccessful.

DR. DALTON was born at Chelmsford, Mass., in 1825. He received both his academic and his medical education at Harvard University, being graduated in medicine in 1847. Early in his career he was appointed professor of physiology in the Medical Department of the University of Buffalo. In 1854 he accepted a similar appointment in the Medical Department of the University of Vermont. Five years afterward he was appointed professor of physiology in the Long Island College Hospital. In 1861 he entered the United States service as surgeon of a New York regiment, and afterward served as surgeon of volunteers almost until the close of the war. In the meantime he had been made professor of physiology in the College of Physicians and Surgeons. He continued to occupy this chair until 1883. He was made president of the faculty in 1884, and continued to be its president until the time of his death.

DR. DALTON'S penchant for physiological research was developed and his reputation achieved at an early age. His text book in physiology is still favorably known, and when published was by far the most advanced work on the subject that had appeared in English.

DR. DALTON was a very popular lecturer, but rather on account of his earnestness and enthusiam, and the forcefulness and clearness of his teaching, than from happiness in diction, which before the class was always labored.

He was truly a scientific worker, who fulfilled his life work in adding to the existing knowledge of physiology and in happily enthusing students with its intelligent study.

Unlike many scientists, PROF. DALTON possessed rare executive ability and was an observant man of the world. He was an engaging conversationalist, and although not in active practice, took considerable part in medical society meetings. He leaves a large circle of sincere friends and admirers, who can not but miss his kindly fellowship and the stimulation to effort inseparable from association with him.

Notes and News

Another Editorial Change in the Journal of the American Medical Association.—DR. JOHN B. HAMILTON makes the following announcement in the Journal of the American Medical Association for February 9:

When the writer accepted the position as editor of the Association Journal, although the Marine Hospital Service bill was then pending, as it had been for the past ten years, he had no certainty of its passage, but on January 4 it passed both houses of Congress and became a law, which, by prohibiting any original appointments into the service except to the rank of assistant-surgeon, has the effect of creating a life tenure in the office of supervising surgeon-general. He therefore tendered his resignation as editor to the Board of Trustees and it was kindly accepted by them to take effect on a day named by himself. His editorial connection with the Journal will therefore cease with the present number, and, until further notice, the "Committee on General Management" will take charge of the affairs of the Journal. With the most sincere thanks of

those who have sent him kindly letters, his best wishes for the continued success of the Journal, and the renewed prosperity of the Association, the editor resumes his life-work in the Marine Hospital Service.

A Christian Science Fad.—

"Think health and health will find you
As certain as the day,
And pain will lag behind you
And lose you on the way."

Why not pursue this same line of reasoning to the bitter end, something after this fashion:

Think wealth and you will get it—
A million, more or less;
Think silk and in the closet
You'll find a gros grain dress.

Think land when you are drowning,
Beyond all human reach,
And by this happy theory
You'll be washed up on the beach.

Think bread when you are hungry
And a feast will there be spread;
Think sleep when you are weary
And you'll find yourself in bed.

—*Harper's Magazine.*

The Bacillus of Yellow Fever.—DR. PAUL GIBIER read recently before the New York Academy of Medicine a paper describing the results of his researches during the late epidemic of yellow fever in Florida, which were prosecuted under commission from the French Government.

DR. GIBIER found in the intestine in one case the same bacillus which he saw in several cases of yellow fever in Havana in the winter of 1887-8, and which he believes to be the cause of the disease. This bacillus presents many points of resemblance to the comma bacillus of cholera.

In accordance with the view of DR. GIBIER, yellow fever is an intestinal infection, which must be treated from the outset by evacuants and disinfectants.

The Paraldehyde Habit.—The Alienist and Neurologist, Jan., 1889, reports a case of addiction to the paraldehyde habit lately observed in the person of a maiden lady of forty-two years of age who, through the assistance of her physician, was conducted from the use of morphine and chloral into that of paraldehyde, and he could get her no further. All attempts at abandoning the pernicious habit have been futile. The lady now consumes one ounce or more of the drug daily, and has taken as much as twenty ounces in twelve days. She cannot sleep unless under its influence, and when deprived of its use for a few hours she is languid, restless, miserable, suffering physical pain and mental depression, and she has no appetite.

The Fortieth Annual Meeting of the American Medical Association.—A recent letter from the Chairman of the Committee on Arrangements, DR. H. R. STORER, states that the local arrangements for the fortieth anniversary meeting of the Association in Newport, R. I., are progessing very satisfactorily. Accommodations for all the Sections are to be furnished in one building, and in close proximity to the large hall for the general meetings. It should be remembered that the next meeting does not commence until June 25, when the hotels will all be open and accommodations abundant, and the early warm days of summer will make the sea air invigorating and pleasant.

A New Source of Digitalis.—The variety of digitalis ordered to be used in the Austrian Pharmacopœia is D. purpurea. A wild form, D. ambigua, is found in some parts of Austria and Hungary, the leaves of which have recently been examined by DR. PASCHKIS in order to determine whether they might be utilized in lieu of the official plant, which is purely a cultivated variety. So far his experiments appear to show that there is no practical difference, chemical or physiological, between the two. If these observations be confirmed, a new and valuable source will have been added to the, at present, somewhat restricted supply of digitalis. —*Lancet*, Feb. 2.

The Death of the Austrian Crown Prince.—The news of the sudden death of Prince Rudolph came as a shock not only to Europe but to the civilized world. Various versions are current as to the cause of his death, but at present the real cause of the fatal event is not publicly known. The theories of murder and suicide both seem substantiated by the circumstantial evidence. Temporary dementia is urged as the excuse for the inconsistencies and departures from the normal of the erratic prince.

Office Photography with the Flash Light.—DR. H. G. PIFFARD, of New York, in a paper read before the State Medical Society explained his methods of getting pictures of diseased parts and of symptoms capable of photographic representation, and exhibited a series of views by the stereopticon. Photography has now become so simple in its application that any physician can without much trouble or expense employ it in recording pathological conditions.

Therapeutic Brevities.

Cocaine in Cancer of the Breast.—J. F. Somerville, L. F. P. S. G., L. A. H. D., L.M., reports in the London Lancet the following case:

Mrs. B—— was operated on about two years ago by a prominent surgeon in London for cancer, the entire left breast being removed. However, twelve months after the operation the disease reappeared, and developed so considerably that the same surgeon was again

consulted and pronounced the case hopeless. Three months ago the usual intense pain which accompanies such cases set in, and it became simply a question of alleviating suffering. The usual remedies having, after a fair, trial proved ineffectual, I tried a cocaine ointment (1 in 20). It had a marvellous effect; the pain was subdued almost immediately and continually kept under control by its use. It had been used for two months, there having been no occasion during that time even to increase the strength. I mention this, not knowing whether it has before been used in such cases.

Antiseptic Pastilles.—Dr. Rotter, of Munich, after numerous careful investigations to decide which antiseptic would be best adapted to the disinfection of the hands, has concluded that the following compound answers all purposes:

℞ Sublimate, ⅞ grain.
Carbolic acid, 30 grains.
Chloride of zinc,
Sulpho-carbolate of zinc, ää 77 grains.
Boracic acid, 45 grains.
Salicylic acid, 9 grains.
Thymol, 2 grains.
Citric acid, 2 drops.

This compound dissolved in two pints of water has the same antiseptic properties as 1 : 1000 sublimate solution, which properties it even retains if the sublimate and carbolic acid are omitted.

The author has succeeded in converting this compound into tablets, each containing the quantity and amount of the ingredients mentioned. They are easily soluble and would seem to answer all purposes, the author having made use of them in twenty-seven surgical and twenty-six gynecological cases with the most gratifying results.—*Münchener med. Wochenschrift*, Dec. 18, 1888.

Treatment of Excessive Perspiration.—Bardet, in excessive and odorous perspiration in the feet or axillæ, combines with bathing the following powders:

1 French chalk (talc), 40 parts.
Subnitrate of bismuth, 45 parts.
Permanganate of potassium, 13 parts.
Salicylate of sodium, 2 parts.

To be finely pulverized.

2. Rice powder may be used in the following combination:

Rice powder, 60 parts.
Subnitrate of bismuth, 25 parts.
Permanganate of potassium, 10 parts.
Powd. French chalk (talc), 5 parts.

To be thoroughly mixed and finely powdered.—*Retrospect*, January, '89.

Pepsin in Croup.—When occlusion of the air passages is threatened by membranous croup or diphtheritic deposit, the use of a solution of pepsin has been highly commended. The application may be made by spray or by a sponge probang, as may be deemed more expedient. Pepsin appears to be preferable to trypsin or papayotin, because, while just as efficient as a solvent, unlike the latter agents, it does not require an alkaline medium for its action. The secretions of the diseased mouth and throat are acid, and do not require neutralization if pepsin is used. The best results are to be expected from the most active pepsins, the pepsinum purum in concentrated solution giving greatest promise for good.—*Pittsburg Med. Review*, Jan., 1889.

Chloroform Water as a Vehicle for Hypodermic Administration of Fowler's Solution and Ergotin.—Unna, in Monats. für Prak. Derm., No 8, 1888, writes that he has found choloroform water an excellent vehicle for the hypodermic administration of Fowler's solution and ergotin, as it prevents the decomposition of the solution. It is also useful in giving morphia where a local anæsthetic and counter-irritant effect is desired, as in neuralgia. It is equally valuable in the internal administration of drugs which decompose rapidly. Atropine and bichloride of mercury may also be given in chloroform water.

Simple Treatment for Acute Coryza.—The Schweizer Wochenschrift für Pharmacie, No. 49, gives the following simple treatment for this affection:

Put one teaspoonful of powdered camphor in a cone-shaped vessel, fill with boiling water, and cover with a cornucopia, the top of which is then torn off just enough to admit the nose, and the warm camphor-vapor inhaled for ten or fifteen minutes. A repetition of this procedure after four or five hours, will generally suffice to effect a cure.—*Correspondence Blatt. f. Schweizer Aerzte.*

Suppositories for Cystitis.—

℞ Iodoform, 1½ grains.
Extract of hyoscyamus, 1 grain.
Cocoa-butter, 45 grains.
M.—Make one suppository and introduce high up into the rectum.

The bladder should be washed morning and evening with lukewarm water. If there be any urethral irritation, a pill containing 1½ grains of terpin should also be taken morning and evening.—*Journal de Médecine.*

Night-Sweats.—Few practitioners appreciate the exceedingly great value of agaricin as a remedy in night sweats, especially those of phthisis. The most profuse sweat is checked almost by magic, with a single dose. It operates by diminishing thirst and increasing the secretion of urine. The dose may be pushed to the extent of one grain in the course of twenty-four hours. The single dose for an adult is from one-eighth to one-fourth of a grain.—*Technics.*

Treatment of Erysipelas.—Dr. Nolte (Allgem. med Centr. Ztg., No. 100, 1888) has in the treatment of this affection for years used mucilage of gum arabic with carbolic acid. The affected parts are painted daily with mucilage containing from a three- to five-per-cent. carbolic acid solution, and allowed to dry.

Treatment of Deafness of Old Age.—Sapolini, of Milan (International Congress of Otology, Brussels, September 10–14, 1888), describes a method of his, which he states he has successfully employed in sixty-two cases of deafness of old age. It consists in mopping the membraua tympani with a weak oleaginous solution of phosphorus. He claims that this treatment diminishes the opacity of the membrane, increases the circulation, and improves the hearing.—*Amer. Jour. of Med. Sciences*, Jan.,' 89.

Water in Summer Diarrhœa of Infants.—The administration of water is very useful, for often the child frets to be nursed frequently because it is thirsty, and thereby gets too much food and overtaxes its already greatly irritated stomach; whereas, if water is given, the system obtains what it really needs and nothing more; its systematic administration, therefore, should always be directed in cases of choleric diarrhœa. —Dr. A. V. Meigs, in the *Retrospect*, Jan , '89.

Antiseptic Paste for Ulcers.—L'Union Medicale of May 19, 1888, gives the following formula for an antiseptic paste:

℞ Iodoform, 40 grs.
Essen. eucalypti, ʒ 5.
Paraffin, ʒ 3 to 12½.
Vaseline, ʒ 12½.

This paste is especially adapted to the treatment of ulcers.—*Medical News.*

For Gastralgia and Vomiting.—

℞ Muriate of morphia, 4 grains.
Muriate of cocaine, 5 to 8 grains.
Tincture of belladonna, ʒ jss–ʒ ijss.
Bitter almond water, ʒ vjss.
M. Sig.—Ten to fifteen drops every hour.

—*Centralb. f. d. ges. Therapie.*

Iodized Glycerin.—Dr. G. Hammond points out that a mixture of tincture of iodine and glycerin produces a greater effect on the skin than the pure tincture, possibly because the glycerin tends to prevent the evaporation of the iodine, and thus enables the whole of its powers to be utilized.—*London Medical Record*, January 21, 1889.

Warming Medicines before Administration.—Lewin (Berlin Med. Wochens.) recommends the warming of medicines before administering, and of subcutaneous solutions as well. The absorption, he points out, is much quicker and the doses necessarily smaller.

Medical Progress.

SALIX NIGER (BLACK, OR "PUSSY" WILLOW).—This species of willow appears to have some peculiar properties not belonging to the genus. All, or nearly all, are bitter and astringent, and contain an active principle called *salicin*, which has some antiperiodic properties, and is a general tonic. Salicylic acid is a derivative of salicin.

The officinal tincture or fluid extract is now made from the buds (aments), called by children the "pussys" owing to their furry or fluffy appearance. It has a bitter and and astringent taste. (An excellent tincture is made by Parke, Davis & Co., of Detroit.)

During the last few years several communications have appeared in medical journals, recommending the salix niger in diseases of the female sexual organs. It is suggestive that all, or nearly all, the species of willow contains *salicin*. Now salicin has been highly recommended in sexual erethism, and its use in doses of 5 to 10 grains is asserted to abolish temporarily the sexual appetite. Salicylic acid, and its salts, all have the same effect in large doses. Salicin is made from the bark of the willow, and some of the reporters who used the salix niger used a tincture of the bark of the shrub and its roots. It is probable that all parts of the plant possess the same properties. Dr. Culpepper's "English Herbal," 1681, says: "The leaves, bruised and boiled in wine and drunk, *stayeth the heat of lust.*"

The first physician who reported his experience with salix niger was probably Dr. F. T. Paine, of Comanche, Texas, who uses it for incipient ovarian disease, masturbation, etc.

Soon after appeared articles from other physicians in this country. The English physicians reported of its use. In the British Medical Journal for July, 1887, Dr. J. Hutchinson has a paper. In the London Lancet for Sept., 1887, Dr. E. H. Tenwich states, that he has found it "a sexual sedative of decided value; useful in ovarian hyperæsthesia, prostatorrhœa, spermatorrhœa, seminal emissions, and enforced continence."

Dr. Hutchinson writes: "In many women pain in the ovarian region is a constant attendant upon the menstrual epoch. In some this is due to organic disease, but in a large number it is one of the manifestations of the neurotic temperament.

Such cases are met with in all degrees of severity, from a slight amount of discomfort along with indications of globus hystericus up to hystero epilepsy in its most pronounced forms. It has always been a slur upon our profession that, when a method of treatment becomes popular or fashionable, other methods are entirely discarded.

At present, massage and isolation from relatives is the popular mode of treatment, and drugs occupy a secondary place, if, indeed, they have any place at all.

Pecuniary difficulties however, stand in the way of isolation or massage ever reaching the masses, and drugs will always be in employment.

Several drugs are in daily use against this ailment, but with only partial success, and it is with the view of bringing before the profession a remedy which in my hands has produced results which I never had before while I was employing the bromides, valeriau, asafœtida, etc., that I have sent this short notice.

In the "Transactions of the Texas State Medical Association," Dr. Paln reports many cases treated successfully with the drug.

He prescribed it in cases of ovarian hyperæsthesia, uteriue neuralgia, etc., and also in spermatorrhœa, nocturnal pollution. His verdict on the drug is that it is a powerful sexual sedative, similar in its action to bromide, but with-

out its depressing qualities. I obtained a supply of the fluid extract and have been employing it for some months.

The most numerous class of cases in which I exhibited the drug were women of a nervous temperament, in whom the nervous irritability reaches its height at the menstrual period, when, along with the general malaise, is added a very decided pain in one or other ovary.

They also suffered from hemicrania, the pain being situated above the left eye-brow, and resembling the feeling as if a nail were being driven in the skull (clavers). Many of them, too, complained of a pain underneath the left breast, and extending round to the back. On one or two occasions I have noticed patients complaining of the above symptoms, and in only a moderate degree, under favorable conditions—as, for example, long-continued anxiety or alcoholism—go from bad to worse till they become hystero-epileptics. In cases of this kind it is supposed that the centre of inhibition has in some way got out of gear, and the severity of the symptoms depends upon the amount of disturbance in this nerve centre.

In cases where the ovarian distress was the symptom for which advice was sought, as being in the patient's eyes the most prominent, I usually succeeded in eliciting other indications of an irritable nervous system, and placed them upon half drachm doses of the fluid extract of salix niger three times a day. In quite seventy-five per cent. of patients so treated a great amount of relief was obtained after two or three days' treatment. Not only was the ovarian hyperæsthesia relieved but the nervous palpitation of the heart was abated, and the patient felt in every way stronger.

I have also given the drug in two cases of nocturnal emissions with marked benefit.

The pollution ceased entirely while the drug was being taken, and for several months thereafter.

Virile power or passion were not much, if at all, diminished, but the relief from the ailment gave them great satisfaction.

I might add considerable to the above experience, but it will suffice to add some observations of my own.

Salix niger appears to me to be an analogue of the bromides, but without the depressing effects of the latter. It is also an analogue of conium, but without its paralyzing effects on the nervous system. It acts in many respects similarly to hydrastis. It has the same tonic power, and probably acts on the arterioles by shutting off an undue amount of arterial blood, although no such experiments have been made with it on animals as have been made with hydrastis. It has some resemblance in therapeutical effect to ferro-cyanuret of potassium.—Dr. E. M. Hale, in *N. Y. Med. Times.*

Observations on the Digestive Ferments.—The Philadelphia Medical News of Feb. 16th publishes in toto a paper with the above title (which was read before the Section on Pediatrics of the New York Academy of Medicine, January 23rd,) by R. H. Chittenden, Ph. D., Professor of Physiological Chemistry at Yale University, that is probably one of the most valuable contributions to literature upon the subject of digestive ferments that has appeared. The paper is exhaustive in character and shows the result of much practical laboratory experience. After treating at some length of the several ferments which play such an important rôle in the process of digestion, and the conditions under which they act, the author draws certain conclusions that are of great moment to every practitioner who lacks time or facilities for settling these questions by actual experiment.

The employment of pepsin in the treatment of diphtheria is a comparatively recent departure in the use of the agent which Mr. Chittenden discussed as follows:

"As a solvent of pseudo-membranes, as in diphtheria and croup, the digestive ferments are certainly destined to prove of considerable value. Both pepsin and trypsin are recommended, but from a partial study of the various digestive ferments at present obtainable, I am inclined to consider pepsin as the most efficacious If a trypsin preparation could be obtained in strength equal to many of the preparations of pepsin, I should be inclined to its use for the reason that it acts best in an alkaline medium, that it will eat into and disintegrate the fibrinous membrane rather than first cause it to swell up; that the alkaline secretions of the buccal and other glands will favor its action; that the alkaline fluids possible to introduce with the trypsin may have a slight solvent action in themselves on the diphtheritic membrane and that the ferment will act after the excess of alkali carbonate has disappeared.

The minor advantages, however, are, at present at least, far more than counterbalanced by the much greater activity of the ordinary pepsin preparations. Further, a large number of experiments to demonstrate the influence of various therapeutic agents on the proteolytic action of trypsin have shown me that as a rule this ferment is far more sensitive to the presence of foreign salts and drugs than pepsin is, and while this fact need not be considered here, yet it may influence us somewhat in favor of the latter ferment."

"As we have seen, the solvent action of pepsin on proteid matter is most pronounced in the presence of 0.1-0.2 per cent. of hydrochloric acid, but a thin solution of pepsin with this acid would very quickly rinse down when sprayed into the throat for the dissolving of pseudo membranes. Admixture of glycerin will, in part, prevent this and keep the ferment for a longer time in contact with the surfaces to be dissolved. Obviously, the operation of of painting or spraying must be frequently repeated, in order to keep the surface well moistened with the digestive fluid Again, as pepsin will not act at all in a neutral or alkaline fluid, it is plainly better to have the digestive mixture at the outset contain at least 0.3-0.4 per cent of actual hydrochloric acid. This will, in part, provide somewhat for the natural dilution of the acid, and also for the neutralizing action of the saliva and other fluids. Further, acid of this dilution is innocuous, and it is a not unpleasant and cleansing mouth wash. So long as the fibrinous tissue can be kept acid, the solvent power of the pepsin will be exerted, and, in this connection, it is to be remembered that there exists a mutual attraction between the acid and the proteid matter of the membrane, by which the acid will be retained longer than

by perfectly inert matter. It is to be remembered, however, that such dilute acid has a tendency to swell up proteid matter, and we can conceive of cases where such application might be deemed inexpedient.

The capability of pepsin for dissolving blood fibrin is very great, and at the body temperature its action is quite rapid, and hence one would expect that, under suitable conditions, the fibrinous portion of a diphtheritic membrane would be attacked with considerable rapidity.

The ferment solution, however, should be carefully brought to the body temperature prior to its introduction, and *the ferment itself should be of the strongest kind*, so as to favor immediate action.

It was further stated that, "the general use of pepsin as a remedial agent in gastric troubles may well make us solicitous as to the character and strength of the preparation at our disposal, but as a solvent for pseudo-membranes, where rapidity of action is of the utmost importance and the life of the patient hinges upon the result, we should be doubly sure of the character of the ferment employed."

The several methods of testing pepsin were then criticised, and as a result of a very careful examination of the best known brands the following result was announced:

	Relative Proteolytic Action.
1. Parke, Davis & Co.'s Pepsinum Purum in Lamellis	100
2. Fairchild's Pepsin, in Scales	52
3. Scheffer's Dry Pepsin, concentrated	48
4. Jensen's Crystal Pepsin	35
5. Ford's Pepsin, in Scales	32
6. North's Pure Pepsin	16
7. Boudault's Pepsin	14
8. Royal Chemical Co.'s Pure Pepsin	9

The medical profession cannot overestimate the value of such data as this, for they have been more or less dependent upon the claims of tradesmen heretofore, and Prof. Chittenden's results have settled the question once for all as to what preparation of the digestive ferments is most reliable. It seems almost incredible that any manufacturer should succeed in producing a product virtually twice as strong as the next best in the market, but the figures as above submitted only confirm the claims of Messrs. Parke, Davis & Co. for their pepsinum purum in lamellis, and they are certainly to be congratulated upon having met with such a reward for their elaborate investigation of this ferment.

FORMULÆ FOR CONTROLLING VOMITING.—The editor of the *So. Med. Record* in an article on Vomiting and its Treatment suggests the following formulæ:

Few remedies internally will avail to allay the vomiting in obstinate cases. Yet I will mention those which have been found most available.

℞ Com. tinc. iodine, gtt. xvi,
Water, ℥ ij.

M. S.—One teaspoonful every half hour.

The following, known as the Randolph mixture, is strongly recommended:

℞ Creasoti, gtt. 20,
Acetic acid, gtt. 40,
Sulph. morphine, grs. 2,
Water, ℥ 2.

M. S.—A teaspoonful every half hour fo two or three doses.

Or the following:

℞ Carbolic acid, gtt. 1,
Chloroform, gtt. 3.
Alcohol, gtt. 20,
Water, ℥ ½.

M. S.—In one dose, to be repeated in hal hour if need be. This is especially useful i cholera morbus.

Another well adapted to cholera infantum i

℞ Carbolic acid, gtt. 24,
Alcohol, gtt 24,
Mint water, ℥ 1½,
Mucil. acaciæ, syrup popies, ää gtt. 15

M. S.—Give a teaspoonful every two hours Apply at the same time upon the stomach o the child a plaster or poultice containing cloves spice, ess. peppermint and ginger.

It is well in such cases also to give ¼th or ⅛t gr. calomel upon the tongue for a few doses and wash down with a little ice water.

Of late, in the northern cities, in cases o cholera infantum, repeated small doses of ic water, with no other medicine, has been use with good results in many instances.

In the *cholera morbus* of adults, no remed has given such good result as hypodermi morphia. Often I have relieved the mos violent cases with a simple injection of ¼t grain of morphine. And I have also found th same remedy very efficient in the vomiting o sick headache, and other forms of violent an persistent vomiting. Indeed I regard it as th sheet anchor in almost every form of vomiting In the milder cases I usually first try some on of the foregoing agents, and failing with them I resort to the hypodermic morphia. In mos cases I apply a sinapism to epigastric regio before administering the morphia.

In the vomiting from pregnancy, I have bee accustomed to use an opiate by enema in con junction with bromide of potash as follows:

℞ McMunn's elix. opii, gtt. 30,
Brom. pot., grs. 30.

Inject into the rectum in 2 ounces of warm water.

This remedy is usually followed by relief fo a day or night, and may be repeated from tim to time, but must be suspended every two o three days to open the bowels. In some case the bromide used alone without the opium ha given relief; and may be continued for a lon while without injury.

The *oxalate of cerium* 1 to 5 grains thre times a day, is a favorite remedy with som practitioners, and occasionally gives relief. A recent writer urges the use of larger doses o the oxalate of cerium as being safe and mor efficient, 8 to 10 grains every one to three hours

When such cases are extremely bad and per sistent they may be often relieved by cauteriz ing the os uteri, or, as has been asserted b

some practitioners, by slightly dilating the os uteri with the finger, as the vomiting in such cases is due to a reflex influence, having its origin in the womb. The dilatation should be made by the index finger introduced within the neck, but not beyond the internal sphincter.

Dujardin-Beaumetz claims to have relieved the most obstinate cases of vomiting in pregnancy with the following prescription:

℞ Cocaine hydrochloratis, grs. vij.
Aquæ distil., ℥ x.

M. S.—Dose one to two tablespoonsful every hour. The patient should lie down to prevent vertigo.

Recently irrigations of sulphuric ether to the epigastrium have been recommended as a superior remedy in extreme cases of vomiting, whether from pregnancy or other causes.

In many cases of extreme vomiting, whether from pregnancy or other causes, relief has sometimes followed the use of iced champagne, and effervescing drinks, and the froth from soda powders, etc.

Recently the nitrate of potas. ¼th grain, oft repeated, has been suggested as a superior antiemetic, also the acetate of lead ½ to 1 gr. every half hour for a few doses.

I have found better results from tincture nux vomica in one-drop doses oft repeated in that class of cases resulting from the after-effects of opium or other drugs, from excesses in diet, drink or other like causes. Hence there exists a relaxed and enfeebled condition of the stomach, a want of tone, which may be sometimes benefited by the invigorating effects of nux upon the nerve centre of vomiting, or it may act upon the peripheral terminations of the sensory nerves in the stomach, upon which also a a good impression may sometimes result from the alterative influence of minute doses of ipecac and like agents.

I have seen, in some cases, a sudden cessation of a long continued vomiting spell from drinking a full cup of very hot coffee, or full glass of cold buttermilk.

A New Form of Rectal Medication.—In the endeavor to gratify the natural desire for convenience of dispensing, portability and adaptation for the purpose, various methods have been suggested during the past few years, looking toward the provision of a suitable form for the rectal administration of glycerin. As the result of many attempts, a form has finally crystallized into tangibility, which, while not entirely perfect, is still the embodiment of many excellent features. This form is that of a suppository, prepared by the simple addition or the incorporation of a special kind of soap. This soap, characterized by extreme hardness, known as stearine soap, has the property of imparting to the glycerin in which it is dissolved the requsite degree of firmness.

These suppositories, from the nature of the composition employed, offer the medicinal ingredients in as compact a form as possible, containing as high as 95 percent of glycerin. In this respect they offer a decided contrast to the form prepared by filling hollow cones of cocoa butter, and which, from the nature of the material, are of an uncomfortable size.

The hygroscopic nature of the glycerin requires that reasonable precautions be taken to preserve the suppositories in a dry atmosphere, in order to prevent the accumulation of moisture on their surface and consequent dilution of part of the glycerin with possible loss of activity.

The form adopted has been the result of much study and experience; being a double-pointed cone, the closing of both sphincter muscles around it results in an upward movement, undoubtedly assisted by the impetus originally given. It has been found that this form offers the least amount of obstruction to such reflex peristalsis.

Experience has also shown that perfect solution is not indispensable to their activity, but that they are capable of provoking a laxative effect without a noticeable loss of substance. That the glycerin, however, exudes or escapes, so as to exert an effect, can be admirably shown by suspending a suppository at the surface of a test tube filled with water. This is accomplished by simply running a pin through the upper end of the suppository, the ends of the pin projecting over the tube. The glycerin can now be seen to escape and its rapid downward flow observed. These suppositories have been used extensively and with quite uniformly beneficial results, both in this country and in Europe.

A frequent source of perplexity with prescribers has been their apparent insolubility in water at the usual bodily temperature. While it is possible to prepare a suppository which would be entirely soluble or nearly so, success has not yet attended the manufacture on a large scale of such with regard either to economy or safety, that is, as far as their keeping qualities are concerned. A suppository which, while possessing this apparently desirable feature of solubility, melts below the average temperature of the body, 98° F., cannot at the same time be either adapted or expected to withstand the vicissitudes of climate to which it would inevitably be exposed in different sections of a large country.

Cases have been met with in practice, in which these suppositories were not applicable; indeed, in which the introduction of any foreign substance except clysters is contraindicated. Considered from a physiological standpoint, the action of these suppositories would naturally be confined to the rectum and usually the lower part of the great intestine. Where obstruction exists in the intestines too far removed from the tracts just named, other means must necessarily be adopted.

Frequently certain febrile or inflammatory conditions of the intestinal tract would alone preclude their use. Such contraindications are self-evident to the observing physician.

While these suppositories have in many cases decided advantages over like contrivances prepared from gelatin, unfortunately their range of application is limited. This results from the chemical nature of the agent employed to solidify the glycerin.

It will be evident from these considerations that many medicinal agents, which it would be desirable to administer in the form of suppositories, would be incompatible with the base employed, while others not affecting the soap with resulting decomposition, can be employed to better advantage in this way than when cloaked with an excipient or carrier of a fatty nature.

A promising field of research is, in this direction, open to the pharmacist and physician, which must in time bear an abundant harvest. —H. F. Meier, in the *Druggists' Bulletin*, Feb., 1889.

THE MEDICINAL TREATMENT OF MENSTRUAL DISORDERS.—The treatment of symptoms alone, without regard to the underlying condition, of which the symptoms are but the expression, is often looked upon as unscientific and unworthy of the consideration of the true physician. It is, indeed, unscientific, and were it possible always to discover and remove the cause it would be equally irrational and unjustifiable. But unfortunately we are unable always to act upon this principle. We cannot always discover the cause, and, knowing or suspecting it, we are often unable to remove it. This is noticeably so in regard to menstrual irregularities, especially as occurring in young women. The general practitioner is often asked to relieve cases of this nature in girls who would never submit to an examination or operation, preferring rather to suffer pain indefinitely than the shame of a physical investigation into the nature of their trouble. In such cases the physician is forced to try the effect of medicinal agents, groping, it may be, in the dark, before insisting upon an examination. Such being the case, it is well to learn what remedies have been found to be of occasional service in relieving symptoms of this nature which are not dependent upon actual organic disease.

In a very practical paper, read before the Connecticut Medical Society at its annual meeting in 1888, Dr. Gideon C. Segur, of Hartford, presents a general review of the subject, giving the results of his own experience and quoting the opinions of several prominent gynecologists whom he has consulted. A brief *résumé* of these opinions is all that can be presented here, the reader who may desire a more extended presentation of the subject being referred to the original paper.

Amemorrhœa.—For this condition most of the authorities consulted recommended general tonics, iron, arsenic, and cod-liver oil. Permanganate of potassium, which was at one time so strongly recommended, does not seem to be in much favor, the objection to it being that it is too irritating to the stomach. Manganese was advised by some, and this is the remedy that the author has found to give the most satisfactory results. Most of the salts of this drug, however, cause so much gastric irritation that they cannot be used in most cases, but the binoxide seems to be an exception in this respect, Dr. Segur having used it in many cases with the happiest results and without seeing any disagreeable effects causes by it. A disagreeable feature of this remedy, in Dr. Mundé's experience, though apparently not in the author's, was it's unreliablity. It might afford relief at one time, and yet at another, even in the same case, and seemingly under the same conditions, it would fail utterly to bring on the menstrual flow. The lactate of manganese is also free from the irritating action upon the stomach that most of the other salts of the drug exert. Manganese has the reputation of being an abortifacient, hence some caution is necessary in its use as an emmenagogue. But the maximum dose employed by the author is six grains a day, and this is far below that which has been used to produce abortion.

Dysmenorrhœa.—The opinions of the authorities consulted by the author concerning this symptom and its relief were most varied. Some thought no benefit could be obtained by any but operative measures, while others spoke hopefully of many remedies. Among those which seemed to have given most satisfaction to the writers were pulsatilla in three to five drop doses three times a day; cannabis indica, viburnum, camphor, belladonna, and antipyrine. Dr. Segur found manganese to render good service in these cases also, in many instances. The binoxide was used in does of six grains per diem. The application of heat, by means of the sitz bath or douche, was a useful adjuvant to the internal medication.

Menorrhagia.—For this condition the most efficient remedies were found to be ergot, hydrastis, digitalis, sulpuric acid, fluid extract of gossypium, and gallic acid.

It is rather strange to find such a want of unanimity in the recommendations of these different authorities concerning the most efficacious medicinal agents for the relief of menstrual disorders. It is rather discouraging also, as the number of remedies vaunted as useful in any particular trouble is generally in inverse proportion to its amenability to treatment. Yet, notwithstanding the discouragements which those who attempt to treat menstrual disorders by drugs often encounter, the physician is many times powerless to treat them in any other way. Dr. Segur has, therefore, rendered good service in collecting the opinions of so many experienced gynecologists and in giving the results of his own efforts to relieve sufferers of this class, and we hope that the paper will be useful to many who may perhaps be able occasionally to cure some of these disorders by one or other of the remedies mentioned by the author.—*N. Y. Med. Record.*

TREATMENT OF EPILEPSY.—The following are the details of Professor Kowalewsky's (of Kharkow) treatment of epilepsy, as given by him in a recently published article (Russ Arkiv. Psych. and Neurolog. XII., 3, 1888). He takes cases which he considers possibly curable (those in which the epilepsy dates back less than ten years) and in these he reckons the minimum period for treatment at two years. This he divides into four equal portions or semesters for convenience in detailing his method. During the first half year he gives his patient a drachm of bromide of soda or such other bromide salt as is selected, each twenty-four hours, adding usually three to five grains of iodide of soda and giving the combination in two or three equal doses in the morning, before dinner, and at night in a large quantity of water. In case there follows an decided adynamia from this quantity of the bromides he decreases the dose somewhat, or in some cases intermits it for four or five days. During this semester also he stops the treatment during the catamenia in female cases.

In order, however, to have this plan succeed it is necessary to allow a good supporting diet though preferably one of milk and vegetable food. If there exists any scrotulous taint, cod liver oil or iodide of iron is also administered

n case there should be any symptoms of ›rominism such as headache, neuralgia, etc., in he beginning of this treatment, it is not neces- ary to stop the treatment, as soon as it relaxed . little these symptoms disappeared. Much ad- antage is had in these cases from warm baths nd rubbings.

Usually this treatment causes cessation of the ttacks so that the patient is free from them uring the last three months of the half year. 'oward the close of the semester the medica- ion is stopped for a period from two to six veeks before beginning it again.

In the course of the second half year the uantity of bromide and iodide is reduced one- alf and given in the same way, and at its end here is again an interval of two to six weeks. n the third semester only the bromide is given nd in doses of five to ten grains, morning and ight keeping up the same regimen and diet. n the fourth half year he begins with only five rains per diem and later only gives the medi- ine at intervals of one, two, three, four, or six lays. After this the bromides are discontinued nd the patient is given small doses of nitro- lycerin or at intervals, in some cases, tr. imulo (*capfaris coriaciae*), which is said to ave a marked influence over epileptic attacks. 'rof. Kowalewsky claims that he has by fol- owing out this plan of medication already ad quite a number of cures, in which the at- acks have not reappeared for over ten years, nd that he has lost faith in the incurability of pilepsy.

Of course, in cases in which there is any pecific or tubercular cause or complication the reatment must be adapted to meet the special onditions.

As regards other than medicinal treatment he author recommends electricity as an adju- ant in certain cases, but cautions against its mployment in any case in which there is a endency to cerebral hyperæmia. He also found enefit in weak irritable anæmic cases from ally warm baths, of temperature of 25° to 28° . (88° to 95° F.) for fifteen or twenty-five inutes, watching the condition and nutrition f the patient, and when these are improved sing baths gradually lowered in temperature nd not so prolonged. In some cases combined aths and electrical treatment are of advant- ge.

The author's ideas as regards diet are liberal, ut he says that for all cases of epilepsy taken ogether, a vegetable and milk diet is best. Alcohol he forbids even in medicine, at least in he beginning of the treatment—he says he has een the epileptic attacks revived by even a ew drops of alcohol. Tea he allows in modera- ion, but he advises that coffee, chocolate, etc., e dispensed with at least during the treat- nent.

There are other points of interest in the rticle, but the above are the most noteworthy, specially the success that seems to have at- ended the author's method of using the romides. The quantity given is certainly not arge; not even in comparison with his own reatment in other cases, for he recommends as nuch as three or four drachms *per diem* in ases of epileptic furor. There would seem to e some special advantage in the method or the egimen presented to bring about such specially avorable results.—*American Journal of In- anity*, Jan., 1889.

TREATMENT OF BALDNESS.—Dr. Lassar (Therap. Ztsch., December, 1888) recommends for alopecia areata the following treatment: For the first six or eight weeks an experienced hand should thoroughly soap the scalp for ten minutes daily, using for this a strong tar soap. A good lather having been formed, it should be removed with an irrigator, using first luke- warm and then cold water. The cold douch- ing will, after several repetitions, harden the scalp somewhat and prevent catching cold. After the scalp has been thoroughly dried the following lotion should be applied:

℞ Solution of bichloride of mercury, 8 grs. to 5 oz.
Glycerin,
Cologne water, āā ʒ ij ʒ v.

Then the scalp should be rubbed dry with alcohol, ninety per cent., to which one half per cent. of naphthol has been added. The scalp now being free from any fat whatever, the fol- lowing is applied:

℞ Salicylic acid, 30 grains.
Tincture benzoin, 45 grains.
Neat's foot oil, ʒ iij ʒ ij.
M.

This treatment carried out daily for some weeks will be followed with good results. Dandruff and itching will disappear. Hairs which are stiff and dry, become flexible and oily, and where no hair was, hundreds of small hairs will make their appearance. Of course this only holds good when the hair-growth is not destroyed.

In very obstinate cases the following is worthy of trial:

℞ Carbolic acid, 15 grains.
Sublimed sulphur, 75 grains.
Fat from a horse's neck, ʒ iss.
M.

The author relies very much upon pilocarpin, which he prescribes either in the form of an alcoholic solution or pomade:

℞ Muriate of pilocarpin, 30 grains.
Vaseline, ʒ v.
Lanolin, ʒ iiss.
Oil of lavender, 25 drops.
M.

That the addition of balsam of peru to hair pomades takes the place of an antiparasite is well known and the following would make an efficient though somewhat expensive pomade:

℞ Muriate of pilocarpin, 30 grains.
Muriate of quinine, 60 grains.
Precipitated sulphur, ʒ iiss.
Balsam of Peru, ʒ v.
Ox marrow, ʒ iij.

Before applying the pomade the scalp should be thoroughly washed with soap and water and allowed to dry; then the ointment should be applied, but it should not be left on too long, before being again removed with soap and reapplied.

Tar in the form of tar-baths is also an excel- lent remedy as well as an antiparasite.—*Mun- chener med. Wochenschrift*, Dec. 25, 1888.

Treatment of Pruritus of the Vulva.—If the affection is an acute one, a lotion containing a small quantity of bromide of potassium or chloral is of use. It is preferable to have the lotion warm rather than cold.

When the acute stage has passed, the following lotion should be applied.

℞ Water, 300 parts.
Sublimate, 1 part.
Alcohol, q. s.

In chronic cases Dr. Guéneau de Mussy prescribes the following ointment, to be applied to the vulva two or three times daily:

℞ Glyceride of starch, ʒ v.
Bromide of potassium, 15 grains.
Subnitrate of bismuth, 15 grains.
Calomel, 6 grains.
Extract of belladonna, 3 grains.

or

℞ Infusion of mallow, 1000 parts.
Cherry-laurel water, 50 parts.
Borate of sodium, 10 parts.

This lotion to be followed by the application of the following powder:

℞ Powdered lycopodium, 30 parts.
Subnitrate of bismuth, 10 parts.
Belladonna-root, 2 parts.

The following ointment is also of service:

℞ Diachylon ointment } equal parts.
Olive oil }

For an eczema of the vulva, Dr. Lusk recommends the following lotion:

℞ Bicarbonate of sodium, 8 parts.
Bicarbonate of potassium, 4 parts.
Glycerin, 6 parts.
Tincture of opium, 8 parts.
Water, 250 parts.

Applications of a solution containing cocaine might also be tried:

℞ Glycerin, ʒ vjss.
Cocaine, 15 grains.
Chlorhydrate of morphia, 1½ grains.

In very obstinate cases Dr. Martineau employs sublimate baths; made by adding the following solution to a bath:

℞ Water, 190 parts.
Sublimate, 20 parts.
Alcohol, q. s.

While these local applications may all be of service, one must not omit constitutional treatment which often relieves indirectly the cause of the pruritus.—*Revue Générale de Clinique et de Thérapeutique*, Jan. 16, 1889; *Med. News*, Feb. 9, '89.

The Cold Bath Treatment of Typhoid Fever.—The argument in behalf of the cold-bath treatment of typhoid fever, made before the State Medical Society, and which is presented in full in this issue, moves us to a consideration of this oft-discussed theme.

The numerical method is open to many fallacies, and may be quoted in any case. But it strikes us that when upward of thirty thousand cases are gathered from many and various sources, civil and military, we must give heed to the deductions from them.

If Dr. Baruch succeeds in arousing the profession to a realization of the fatality of typhoid fever in our midst, and in directing attention to the success of the cold-bath treatment, which, for obvious reasons, has not yet obtained firm footing, the outcome may be valuable.

Certain it is that we cannot dispute the important deductions from the comparative statistics cited, nor should we allow preconceived notions to deter us from utilizing them.

It will be difficult to persuade the profession, which has been so long under the dominion of the *laissez-faire* policy, to adopt the heroic method of cold bathing. There seems, however, in the points made by Dr. Baruch, sufficient ground to enlist our careful reconsideration of the whole subject. The most important of these seems to us the emphasis placed upon the object of the cold-bath being anti-febrile rather than merely antithermic, inasmuch as its action is chiefly directed toward the neutralization of the febrile toxæmia due to the typhoid process. The secondary position assigned to elevated temperature as a lethal factor, may be sustained by recent clinical observations; for instance, Glasser has shown that among two hundred fatal cases only fifteen had manifested high temperatures during life. Lowering temperatures is not a curative measure:

The chief obstacle to the adoption of the cold-bath treatment will be the difficulty of convincing the physician that the small pulse, pallid surface, and marked chilliness, which patients manifest in the bath, are not harbingers of danger and death from heart-failure and collapse. That this fear is not well founded, and that these symptoms of pseudo-collapse may be, to a great extent, obviated by energetic friction in, and rapid dryiug after the bath, we are assured by trustworthy observers, all of whom agree that the cold bath is a true heart-tonic. Besides Brand, such clinicians as Liebermeister, Jacksch, Flehne, Strumpell, Rossbach, Heubne, Juergensen, Bamberger, and others, have expressed, at the Congress for Internal Mediciue, in 1885, almost unanimously, the opinion that, until we find a specific curative agent for typhoid fever, that treatmeut is to be preferred which is capable of most successfully diminishing or removiug the effect of the morbific ageucies, and that this is most surely accomplished by the cold-bath.—*Medical Record*, Feb. 16, 1889.

A Substitute for Transfusion.—Not infrequently does it occur to the country practitioner that in cases of hemorrhage from any cause, if transfusion were demanded and advisable, the proper apparatus aud paraphernalia are not at haud. Transfusion is probably more frequently demanded in emergency thau at any other time, aud that is just the time when it cannot be practiced. For a long time it was supposed that nothing but blood could be used for this purpose, but recently it has been practically demonstrated that a saline solution will answer every purpose, and accordingly the

method has been so far modified that fresh blood is not a preliminary requirement. But even with this difficulty removed there will be times when this simple procedure—simple for the manipulator who has been initiated—cannot be carried out. Suppose, for example, we take a case like the following—one without loss of blood, but carrying with it all the bad effects of loss of blood: a profuse and repeated choleriform discharge from the bowels. Given a patient on a hot summer day suffering from an affection of this character, and the physician is called suddenly to find the patient in collapse. Hypodermics of morphine and atroyine may be of some use in preserving the frequent action of the bowels for the time, but something is demanded for the benefit of the patient threatened with death from exhaustion and from shock. Now, in a case of this kind, what could be more appropriate than an enema of hot water to which has been added a sufficient quantity of laudanum to obtund the sensibility of the rectum. If to this we add a small quantity of common salt, the work is completed, and this can be repeated again and again without danger and with the best possible results. Cases of the kind will occur to the practitioner far out in the country, at a farmhouse, and all he has to do is to use the syringe which every accoucheur should have in his bag. While he watches his patient recover, he can send for the apparatus for transfusion together with any assistance which may be deemed necessary.

In the case of uterine hemorrhage, either before or after the birth of the child, this process may be adopted; or in the case of injury, where great amounts of blood have been lost before the arrival of the physician, many lives might annually be saved from the bad effects following the shock of the injury and of the operation demanded if this simple precaution had been followed out. Possibly the method may be objected to on account of the condition of the bowels; it will be said that the lower bowel should be unloaded. That is not required, but by using the enema the bowels may be moved, when we have a still better opportunity for practicing this method, as they will contain more water with less discomfort to the patient.—*Med. Bulletin*, Feb., '89.

Mechanical Treatment of Tabes Dorsalis.—A singular method of treating cases of locomotor ataxy has, during the last three months, been tried at the Salpêtrière, and the results have been so satisfactory that M. Charcot recently devoted one of his lectures (Progres Médical, Jan. 19th) to the subject, demonstrating the cases so dealt with. The practice is not absolutely novel, since in 1883 it was brought forward by Motchoukowsky of Odessa, who claimed that twelve tabetics had been greatly benefited by it, and also that the plan was of use in cases of sexual impotency apart from tabes. Last year M. Raymond, when on a visit to Russia, heard of the practice, and introduced it to M. Charcot's notice, and, as above said, it has been adopted in M. Charcot's wards during the last three months, the "chef de clinique," M. Gilles de la Tourette, superintending it. It simply consists in suspending the patient by means of Sayre's "jury-mast" for a period beginning with a duration of half a minute and progressively increasing up to three or at the most four minutes, an interval of two days occurring between each suspension. In order to exert greater traction on the spinal colum, it is well to raise the arms every fifteen or twenty seconds. Eighteen tabetics have thus been treated, embracing about 400 "suspensions." Excluding four who were not suspended more than three times, the improvement was marked in fourteen, and eight of these most remarkably. They were all confirmed cases, and had mostly been treated by cauterization along the spine. Almost from the commencement of the suspension treatment the patients would improve in walking—an improvement at first temporary, but after eight or ten suspensions becoming continuous. They could then stand more easily, and walk without assistance. After twenty or thirty suspensions Romberg's symptoms disappeared. There was also relief from vesical troubles, when these existed; diminution and even disappearance of lightning pains; return of sexual desire and capacity. Anæsthetic and other sensory disturbances also disappeared, and the general condition of the patient improved, sleep being better, etc. One case had a return of lightning pains whilst being treated, but subsequently again underwent improvement, which in all the rest was uninterrupted. In no case did the knee-jerk return, or the pupil reaction become normal. The method has also been applied to a few non-tabetic cases, as Friedreich's disease, neurasthenia, and disseminated sclerosis; but, as M. Charcot observes, the method is still in the experimental stage. So far the results in tabes are encouraging, whilst the simplicity and harmlessness of the method are additional recommendations for its further trial.—*Lancet*, Jan. 26, 1889.

Bulkley's Method of Treating Felons without Incision.—Patients even with a beginning felon are commonly found to be in a state of lowered vitality, often with more or less of a sluggish condition of the digestive organs, coated tongue, loss of appetite, etc. Unless it is contra-indicated I generally begin the treatment with a mild cathartic, the following being that commonly employed:

℞ Ext. colocynth. comp.,
Mass hydrarg., ää gr. x.
Pulv. ipecacuan, gr. ij.

M. Div. in pil. No. iv. Sig. Take two at night and two on the second night after.

A tonic is administered from the first, one containing iron being preferred: that usually given is a combination known as Startin's mixture, which has considerable power in controlling inflammatory affections of the skin. The formula of this is as follows, the proportions being somewhat altered to suit individual cases:

℞ Magnessii sulphatis, oz. j.
Ferri sulphatis, dr. j.
Acidi sulphurici dil., dr. iv.
Syr. zingiberis, oz. j.
Aquæ, ad. oz. iy.

M. Sig.: Teaspoonful in water, through a tube, after eating.

In addition to this it is my custom to administer the sulphide of calcium (calk sulphurata) from the beginning to the end of the treatment. I usually give it in the form of one-fourth of a grain gelatin-coated pills, one being given every two hours irrespective of food or other medicine. In order to have any good effect from this latter drug it is essential that it should be fresh and pure, for, as is well known, when exposed to the air it rapidly loses its free sulphur and becomes converted into the inert sulphate of lime, or gypsum. It can not therefore, be well given in powders or tablets, nor even in extemporaneous pills, but is best administered in those well coated with gelatin, which preserves the drug unaltered; it is well, however, to test the pills by biting them, when the characteristic odor of sulphuretted hydrogen becomes at once noticeable if the article is good.

Some attention to the diet should also be paid in these cases, and specific directions should be given. Alcohol in all forms should be absolutely interdicted, and the malted liquors appear to be also very harmful. The diet should be full and nourishing, but not stimulating.—*Ind. Med. Jour.*, Feb., 1889.

ERYTHRIN, A NEW ALKALOID.—Dr. Fernando Altamirano has communicated to the Academy of Medicine of Mexico some researches he has made upon an alkaloid obtained from the Mexican plant Erythrina coralloides, or colorin, as it is there called. The toxic effects of the plant in question were brought before the notice of the Academy by Professor Dominguez and Dr. Altamirano as long ago as 1877, and since that time a thesis on the subject has been published by Señor Rio de la Loza, but until lately no attempts seem to have been made to isolate any alkaloid or alkaloids which the plant may contain. According to Dr. Altamirano, the principle with which he has been experimenting, and which he calls erythrin, is a white, spongy, greasy solid, crystallizing in various forms, melting at a low temperature, a dark-yellow liquid with a disagreeable and characteristic odor being formed. It is soluble in water, ether, and in benzol, still more so in chloroform, and very freely in alcohol. From the solution in this last only can it be crystallized; from its alcoholic solution it is precipitated by alkalies, especially by ammonia, as an amorphous substance, resembling resin. Concentrated nitric acid dissolves it, coloring it slightly yellow. It is precipitated by bichloride of mercury, by the double iodide of bismuth and potassium, by bichloride of platinum, and by bichromate of potash. It contains nitrogen. Regarding the properties of erythrin, it may be stated that, generally speaking, they present considerable resemblance to those of curare. It acts on the motor nerves, the vitality of which it arrests. It leaves, however, the brain and medulla, the sympathetic, and both classes of muscles unaffected. The action of the heart is not interfered with, or the peristaltic movements of the intestines. Sensation is also unaffected. When administered hypodermically, it rapidly proves fatal, even in very small doses. It is much less active when administered by the stomach, and when injected into the rectum it appears to have little or no effect. Dr. Altamirano has been able to show that erythrin has great power in counteracting strychnine poisoning. The only attempt which seems to have been made to observe the therapeutic effects of erythrin on the human subject was a case of very severe epilepsy, and was by no means successful the patient succumbing to the disease. It was, however, proved to Dr. Altamirano's satisfaction that doses of 0·6 gramme can be borne without danger by the human subject.—*Lancet*, December 22, 1888.

A NEW TREATMENT OF ERYSIPELAS.—Dr. F. P. Henry in an article on Antiseptic Medication published in Med. News, says: I have lately been treating erysipelas with hypodermic injections of the bicyanide of mercury. My reason for employing this salt in preference to corrosive sublimate is that the former is compatible with cocaine while the latter is not. A hypodermatic injection of corrosive sublimate is so painful that few will consent to its repetition, while the bicyanide, as I have employed it is comparatively painless. The following formula is the one I am accustomed to use:

℞ Hydrarg. bicyanid., grs. ij.
Cocaine hydrochlorat., grs. iv.
Aquæ destillat., ʒ ss.

M. Fifteen minims to be injected beneath the skin.

I have made about two hundred injections of this mixture in cases of syphilis and erysipelas, always using the dose above mentioned, and have never seen any untoward constitutional symptoms from it, beyond a momentary faintness which I attributed to the cocaine. Several of the patients were delicate women.

I have treated ten cases of erysipelas capitis with injections of the bicyanide, and without entering into details I may state that when the disease is beginning, for example, at the side of the nose and extending toward one or both cheeks, this treatment tends to abort it. It is of great importance that the injection be made, not into the inflamed patch but a little beyond its border.

A NEW OPERATION FOR PROLAPSUS UTERI.—Firing describes an operation which has been performed for several years by Frank. It consists in completely separating the posterior vaginal wall from the rectum as high up as the fornix, and then folding up the redundant portion by means of catgut sutures. There is thus formed a large projection on the posterior wall, "like a living tampon." The wound in the perineal body is then repaired in the usual manner.

Frank regards the success of the operation as dependent not so much on the formation of a vaginal fold, and the narrowing of that canal, as upon the attachment of the vagina in a new position as a result of granulation and cicatrization of the external wound. He prefers to repair the perineum three weeks after the primary operation. Patients who were treated by this method have been examined seven years after operation, and showed no evidences of recurrence. One woman, with complete prolapsus has borne four children since the operation without having any return of the displacement. —*Amer. Jnl of Med. Sciences*, Jan. '89.

The Medical Age.

Vol. VII. DETROIT, MARCH 11, 1889. No. 5.

Original Articles.

DOCTORATE ADDRESS.*

BY W. H. LONG, M. D.

From time immemorial it has been the custom at the close of each regular session of a medical college for a member of the faculty to give to those who are about to enter upon their careers as practitioners of medicine some parting words of advice, as well as speak words of cheer to those who are about to "commence" or begin work in a profession that has for its aims the alleviation of human suffering, the preservation of human life, and consequently making the human race happier and better as far as lies in their power individually and collectively, impelled and inspired by the noblest sentiments ever planted in the breast of man.

Therefore in behalf of the faculty of the Michigan College of Medicine I am here to perform that duty, and wish you, graduates, as you walk out of this building with the coveted diploma in your hands, a God speed in the profession you have chosen and success in the arduous labors you have voluntarily assumed.

It requires a great deal of moral courage to become a medical student, and to work and study for three long years, day and night to reach the goal of their ambition at that time—viz: the degree of doctor of medicine.

Even then the three years are almost too short and certainly would be wholly inadequate if the student life of the graduate should end with the receiving of his degree.

During these years of hard study by day, and wrestling with knotty questions in anatomy, physiology, histology or hygiene by night, the foundation only has been laid for the superstructure that is to be built hereafter, and if the foundation walls have been firmly cemented together with the mortar of knowledge, the greater, the more beautiful, useful and beneficial will the superstructure be.

If there be a graduate here to-day who thinks that his medical education is complete, or who does not believe that the life of a physician is the hardest and most unremunerative, financially, for years at least, or who has, or is about to enter upon the practice of his profession for the pure love of sordid gain, let him pause at this stage and give himself up to reflection. I can assure him, every physician of experience will tell him that in either of the events enumerated his life will be a failure; a failure because the foundation has no superstructure and is left exposed to the elements of decay and disuse and in the course of time will crumble; a failure because of indolence and indisposition to brave the storms of adversity, or keep apace with the times in which he lives; a failure because the love of gain is the only lever which moves him to action, and the springs of benevolence, charity, and that love of good deeds which prompts to do the greatest good to the greatest number, have dried up, and he will eventually find himself stranded on the sands of time as useless to his community, to his neighbors and to himself as is the empty shell that has been cast by the waves upon the seashore. These are all certain elements of failure.

It is of such material that quack doctors are made, the kind that in order to keep soul and body together resort to advertising all sorts of impossible remedies and all sorts of impossible cures and thus prey on the credulity of an unenlightened part of the public, the kind of doctors that are put beyond the pale of respectability by educated physicians, a respectability once lost that can never be regained.

The requisites for success may be summed up in a few words, but these few words cover a great deal of ground. The successful physician must be an educated, energetic, refined and cultured gentleman or gentlewoman. I wish it distinctly understood that the Michigan College of Medicine welcomes to the ranks of the profession the gentler as well as the sterner sex, and furnishes them equal advantages for the acquirement of such knowledge as may place them on an equal footing before the world. These requisites may not all be acquired at once, but by study, observation and perseverence, and here, as is always the case, energy is an important factor. Education must be of two kinds, and the first is that preliminary to the study of medicine. The individual before entering upon the study of medicine should be able, at least, to speak and write the language of his or her country correctly. I know there have been exceptions to

*An address delivered at the commencement exercises of the Michigan College of Medicine, Feb. 28th 1889.

this rule, and students who could do neither, have made good, useful and successful practitioners, but they are the exceptions that prove the rule, and no one should be encouraged in this country to begin the study of medicine who can not speak and write the English language correctly. While a knowledge of the classics will very greatly aid in the acquisition of medical knowledge it is not essential, and not being essential, is not necessarily an element of success.

The second kind of education is exclusively medical and embraces a thorough knowledge of the principles of medicine and all of its allied branches. A student with rather crude ideas as to what a physician should be, once came to me and asked my advice as to what school of medicine, or what kind of "pathy" I thought the best. Knowing that the student was in earnest I gave this advice, "if you are determined to study medicine, go at it with a will to make yourself a thoroughly educated physician and let the 'pathies' take care of themselves." There are axioms in medicine which are as capable of being demonstrated as the problems of Euclid, and founded as firmly on scientific truth as the laws of KEPLER, and they bear the same relation to irregular schools of medicine as truth does to falsehood, the same relation to quackery and charlatanism as day does to night, and when learned as they should be, false teaching, false ideas and theories, however plausible, disappear as does the darkness of night before the rising sun.

If these principles could be inculcated on the minds of all students of medicine, and the noble truths spoken of at the beginning impressed on their hearts, there would be no divisions between medical men and there would be but one school of medicine; not that all the theories pertaining to physic have been reduced to an exact science as mathematics, geology or astronomy, but the principles composing its foundation have been, while the theories belong to the superstructure. If, after its erection there be discovered a flaw in it here, or a misfitting piece of work there, it can be easily remedied by removing the faulty piece or part and replacing it with the discovered truth.

I think I can truly say for the students of the Michigan College of Medicine that, if application, attention and an evident desire to learn the truth as expounded in the lecture room and at the bedside daily are to be taken as an earnest of what we may expect in the future, they have well laid the foundation for their medical lives.

This fact has been attested by their teachers to those who graduated, and with all the elements of success in their education and character they will not drop out of sight as soon as they are established in the field of practice, but will be heard from in after days.

As I have said, Graduates, you are now ready to build the edifice which is to reflect you glory, and as long as you live and labor in the field of medicine just so long will it be necessary for you to be students, and just so long will it be necessary for you to go over again and again the elements and principles which you have been taught here. Not only this, but you owe it to your patients, to the community in which you may live and to yourselves to keep posted in all matters pertaiuing to the world of medicine, in new discoveries and progress made in old oues, for medicine is a progressive science and new truths and new remedies are being added to it day after day.

Every surgeon in the land will tell you that since LISTER first set forth the importance of antiseptic surgery, the principles embraced have been enlarged and perfected to a degree that operations are now successfully performed which but a few years ago were thought to be impossible, or so hazardous that they were rarely undertaken and patients left to die of conditions which are now readily removed. Hundreds of lives are saved annually by reason of improved methods of treating and dressing wounds that would have been sacrificed a dozen years ago. The advancement in our knowledge of the etiology and pathology of many diseases with the aid of the clinical thermometer and other appliances renders diagnosis easier and treatment more accurate than was possible a quarter of a century ago, and while great progress has been made during that time all along the line no branch of medicine has made greater strides than hygieue. I would earnestly impress on you the importance of a thorough knowledge of the laws of health, because of their relation to the welfare and happiness of the human race by preventing disease and death.

Paradoxical as it may seem, one of the most important duties of a physician is to use all the means and knowledge at his command to improve the sanitary condition of the community in which he lives, as well as the houses and surroundings of his patrons, keeping them in a healthy condition as near as possible.

It is estimated that out of every one thousand children born, 15 per cent. die before the end of the first year, nearly 10 per cent. during the second, and that a great majority of these deaths are due to preventable causes. Just in proportion to the zeal with which a physician performs this highest and noblest duty of lessening the death rate by removing the cause of disease, so will he rise in the estimation of his people and establish for himself the priceless jewel of a good name. It has been known for years, and better known to day than ever before, that a great many diseases the human race is heir to are preventable, and are engendered by unsanitary conditions and a want

of knowledge on the part of the people of the simplest rules of sanitation. This applies no less to the inhabitants of the rural districts, where the idea of disease being engendered, propagated and spread by filth is never dreamed of, than to those of cities where not properly understood. The number of deaths annually from bad house drainage or defective sewers in cities, and from no drainage at all in the country, will never be known. It is a well known fact that during the cholera epidemic in 1873 the greatest ratio of mortality occurred in the inland cities and towns where the matter of house drainage and sewers had been neglected, while many large cities within the belt of the disease escaped altogether, or had but comparatively a few cases, because of their improved sanitary conditions.

All that is known of sanitary science is contained in the text books on that subject and the current literature of the day, which I am sure you will not neglect if you appreciate the importance of the subject. The people should be taught hygiene and its relation to health and disease, and the teacher should be the family physician, and the school in session continually.

Closely allied to hygiene and leading directly to it by a study of sanitary science, is that comparatively new branch, bacteriology. Since SIR JOSEPH LISTER first set forth the doctrine that micro-organisms introduced into wounds during the course of surgical operations were the cause of suppuration and unfavorable results in so many cases, due to neglect of cleanliness in the preparation and course or the *technique* of the operation, and which could be prevented by the adoption of common sense rules in all surgical cases by which the surgeon renders himself and all the appliances to be used in an aseptic condition, the investigations thus started have been continued and the system expanded to a certain degree by such eminent scientists as PASTEUR, KOCH, KLEIN, STERNBERG and others of Europe and our own country. Experience alone has demonstrated the correctness of SIR JOSEPH LISTER'S theory, but investigations added other and superior methods, opened up a field that is ripe for the harvest, and labor therein will be continued until the relation of bacteria of all kinds to disease has been discovered and remedies or methods of prevention correctly ascertained. Up to the present time it has been clearly shown that certain forms of bacilli are always found in consumption, in cholera and many other diseases that man and the lower animals are subject to; also that these lower forms of life differ from each other in form, methods of propagation and character, and are capable of producing the same disease when inoculated or planted in the blood of healthy individuals, and that they may be introduced into the system in other ways. PASTEUR and his co-laborers may well be considered the pioneers in bacteriological science, but as pioneers rarely complete the work they begin, it will remain for those who take up the work where they leave it off and follow the paths indicated, with their divergent routes, to the end.

The study of micro-organisms, their culture and peculiarities of kind and divisions or genera, the part they play in a departure from the normal condition of health must necessarily accompany that study.

It is related of the Cathedral at Cologne which has taken centuries in its construction and is still unfinished, that generation after generation have succeeded each other, and in a like manner have passed away while working on that grand building.

The young man full of energy, life and strength took up the tools where his father laid them down and toiled on day after day, year after year, until he finally laid them down in death, when they were again taken up by his son, who built and added to the work his father had done before him; and this has been continued to the present day, when the mighty structure stands forth with its spires reaching heavenward, showing forth in its magnificent proportions what its beauty and glory will be when completed.

The young men and women, all over the world who to-day are receiving their degrees are the children of science and will be the workers and investigators in the future, and must take up the implements soon to be laid down by their instructors and used well and faithfully until laid down by them in death, years hence, and in turn again taken up by the children of their creation, and so continued, on and on, until the scientific structure of medicine shall show forth in its beauty and glory the result of their work. Men of science are slow, at this day, to accept and adopt theories or suppose facts that have not been tried in the crucible of scrutiny and study. In the profession you have chosen there should be no exceptions.

Preliminary to the study of bacteriology is that of another allied branch, microscopy, and no physician's armamentarium is complete without a microscope. In fact a knowledge of the power of the microscope and expertness in its manipulation is important in all branches of medicine. By it only have we been able to determine the minute organization of the tissues of the body, and study satisfactorily comparative anatomy; by it we have been able to understand the physiological processes of growth, waste and repair; by its use we can note the pathological changes which take place in disease, the composition and nature of tumors, and with the aid of chemistry dis-

cover perverted functions of various organs of the body, many times sufficiently early to remedy the diseased condition before the damage becomes irreparable.

With the microscope and a knowledge of chemistry we can detect adulterations of food, drinks and medicine—an important adjuvant to sanitary science, and so to public health, and without their aid the study of bacteriology would be impossible. In thus enumerating the advantages and benefits to be derived, an old subject that has been gone over many times before, I do it to impress on you the importance of increasing your knowledge in these directions. I would not have you simply to be satisfied with the statements of some one else, or possess only the knowledge gained in the laboratory and dissecting room, but advise you to verify for yourselves the truths that exist in all branches of medicine, and have you give to the world any new discoveries you may make.

In addition to all of this you should read in the medical journals the current literature of the day. Take as many medical publications as you can set aside the time to read and mentally digest with your other studies, beginning with your home medical journal. Write for them also if you have something new to write. If you have made any new discoveries, or have treated cases of unusual interest by reason of peculiarities developed in the course of the disease, or have found some unusual pathological conditions in a necropsy, write the particulars out for your medical journal, but if you have nothing new or of interest to the profession at large do not write at all, a piece of advice that would be thankfully given by any medical journal in the country.

Attach yourselves to your nearest medical society and be as regular in attendance on the meetings as you can, allowing only professional engagements or illness to prevent. Take a part in the proceedings and accustom yourselves to public speaking and debate; write papers and enter fully into the spirit of the work of your society. It will be impossible for you to meet with any body of medical men and not learn something from the discussions that arise, and from the experience of physicians older than yourselves. In thus mapping out the work that is before you it may seem that the amount is excessive in quantity and quality, but this is not so when you remember it is not a question of weeks, months, or to be measured by years, but a lifetime.

Any kind of work, mental or physical, must be interspersed with periods of relaxation in order to permit of the recuperation of the vital forces expended. This can be done with profit by attention to the social duties which will devolve upon you and alternating your scientific studies by reading works of fiction, history, the poets or whatever may be useful that your fancy may choose. These, with occasional amusements judiciously selected, will not only give you rest, but add grace and culture to movements of body and mind. In fact if you are to attain that high standard in the profession you have chosen, in your community, and to which your ambition already points, you can almost as well afford to neglect the literature of the past and present as you can that by which you must keep apace with the progress of medicine with all that the term implies.

You will find that all of these things can be done only by working systematically. Begin by laying out your time for labor and relaxation by adopting a system of hours to be devoted to certain things, and which should embrace regular periods for retiring, rising and for meals. These can not be followed absolutely, because the doctor is called on for his services at all hours, including day, night and meal time, but an interruption for a day or longer should not change the system, and the hours for medical studies and investigation with subjects stated for given days and times, as well as literature, social duties and amusements, should be followed as closely as professional interruptions will allow. You will find in the earlier years of your career that such interruptions will be but few, but that with each succeeding year they will become more and more numerous, and that still later that the hours for both study and recreation must be curtailed annually, but never to the extent of abandoning them or your system, for the most busy practioners the world ever saw found time for study and relaxation. It is during these early years of your professional life that the store-house for knowledge should be filled that you may be able to draw on it in later years when time is more valuable by reason of its scarcity, and your inability to devote more to replenishing the granary.

Another point I wish to call your attention to, and one you will find of the greatest value, which will increase with time, is that of keeping a clinical record of all your cases, no matter how trivial or how grave. All the incidents connected with the cases, including temperature, pulse, respirations, condition of secretions and treatment, with results, should be noted after each visit. If death takes place and a necropsy follows, give all the pathological conditions found, as well as any other matters of interest connected with the case. This record should include all office cases as well as those visited at their homes, and the entries should be made at once when convenient, or at least at the close of the day while the facts are fresh in your minds. It will consume but a few minutes of time each day, and will amply repay you in more ways than one. It is only by such a course that you can obtain the full measure of your experience, as well as have convenient

a mass of statistical information that can be received and preserved in no other way. It will enable you to refresh your memory and be a complete record of all cases treated in the families who employ you.

Your services as a family physician will be appreciated and valued in proportion to the attention, skill and intelligence with which you perform your duties, and this appreciation will increase as years go by, because you become acquainted with all the peculiarities of disposition, temperament and constitution of the members of the family, and therefore better able to judge as to what is required in case of illness than is possible for one who may be called for the first time.

There are weaknesses and idiosyncracies that belong to members of many families which must be respected, and are only discovered through the intimacy that must exist between them and the physician and the confidence reposed in the doctor. These may be of character or temperament, or as is not infrequently the case, an inability to take certain remedies because of their contrary or unpleasant effect which fact is only discovered by experience and if perchance they may have been forgotten are brought to mind by a reference to your history of cases. In your capacity as family physician you become not only the advisor and confident, but the repository of family histories and secrets that bring the relation still closer, and I want to say for the great body of physicians, who in their professional capacity become possessed of family secrets and acquainted with the skeletons which are supposed to be hid away in closets, that such knowledge is always held sacred, and kept securely locked in the heart of the doctor, even though professional and personal relations be broken and ties of friendship severed by subsequent events.

I wish you could impress upon and teach the people the great value to them of employing and retaining constantly the services of an intelligent physician who shall stand in that relation to the family. Many do and know the advantages and realize the benefits derived therefrom. They know that he understands them all from the heads of the family to the youngest child, and whose services are ever required in times of distress, from the chamber of birth to the chamber of death, and who of all others can best give them words of encouragement and cheer in their most trying hours. It is to be hoped that you may never reach a point in your wished for prosperity when you will refuse to attend the sick in the homes where poverty reigns, and where there is no hope of fee or reward other than a consciousness of having done your duty, performed an act of charity and perhaps saved a life, and such services should be rendered with equal fidelity and zeal with those given to people better circumstanced financially. No other profession or people on earth are called upon for so much of their time for charitable work, but never let it be said that the medical profession ever faltered in their duty to the less fortunate of their fellow creatures. Again, never refuse to consult with another physician if it be suggested by any member of the family, no matter how trivial you may think the case to be or how unnecessary the consultation; rather suggest it yourself if you see that some interested relatives are anxious about your patient. You will thus inspire confidence in yourself and quiet the fears of the friends who naturally feel a deep interest in the case. You have nothing to fear from a consultation and you must remember that it makes no difference how much experience you must have had as a student, or subsequently in hospitals, your lack of years and experience in private practice will be felt by those employing you, and they frequently ask for a consultation, from no distrust in your knowledge or skill, but through fear that the worst might happen and they would feel better satisfied if experience be brought to your aid, and you should always profit by it.

In after years when you have acquired an experience of your own you become the consulting physician to the younger members of the profession and when so called upon remember your own early period of practice and treat them kindly. Give them words of encouragement and advice and make no changes in medicines or conduct of the case unless there be good reasons for so doing, in which event you will not hesitate to so advise, and explain the matter to the friends of the patient in such a manner as not to reflect on the physician in charge and prejudice them against him, unless you find him an incompetent ignoramus, in which case you will be justified in telling all concerned the facts in language not to be misunderstood. Mistake in diagnosis, especially where the symptoms are indefinite or obscure, may occur to the most experienced and learned physicians, but such mistake does not imply that the treatment has been hurtful, or is not indicated when the correction is made. Knowing these facts never take advantage of them for selfish ends. People of intelligence who may require your services are quick to understand disagreements among doctors, and nearly always to the disadvantage of both even where error of judgement has done no harm to the patient. Never give medicine simply because you have been called to see a case, if in your judgment none is required. If the parents or friends be people of ordinary intelligence they will readily adopt your advice if you explain to them in a clear manner the facts pertaining to it with your reasons, and

give instructions as to what is necessary to be done. See the case as often as may be required and give medicine only when there is an indication for it. It must not be forgotten that one of the most kindly offices of a physician in cases which are hopeless as regards recovery, is to smooth the pathway to the grave, knocking off the rough places and inequalities over which they must pass. This should be done by any method that circumstances and judgement may dictate, but always be frank with friends and relatives.

In your relations to the members of the profession, in all capacities, be courteous and considerate, and under any and all circumstances do not forget to be a gentleman. This is a rule of etiquette that will never lead you estray, and will enable you to obey all the codes of medical ethics whether you are acquainted with the exact language or not, and no code of ethics ever adopted will govern the conduct of a man who is not a gentleman. The same rule will apply to your relations with your clients as well. Pleasant words, agreeable manners, polite salutations and gentlemanly conduct constitute a capital that will pay a greater rate per cent. in interest than any investment that can be made, and when your lives have become full of years you find that, by a faithful attention to your duties, independent of many disagreeable experiences, you are the protector of families, the adviser of communities and municipalities, respected and loved for your worth, the height of your ambition has been reached, and with a consciousness that the world is better because you have lived, you may safely attribute your success to the early adoption and adherence to the motto, "*pax et scientia sed veritas sine timore*," peace and science, but truth without fear.

CONVULSIONS IN CHILDREN.*

BY DR. JULES SIMON.

Gentlemen:—I may remind you of the old division of convulsions into internal and external. By internal convulsions is meant spasm of the glottis—laryngismus stridulus. By external convulsions we designate those clonic spasms sometimes general, sometimes partial which affect the external muscles. The word eclampsia is used as a synonym. I am not going to-day to take up all kinds of external convulsions, but only those so-called idiopathic or essential convulsions in children which are due to accidents generally benign and transitory and which are independent of any organic affection of the nerve centres.

* A lecture delivered in the Hôpital des Enfants Malades, Paris, France.

ETIOLOGY.

What are the causes of eclampsia in children?

First in order are the disorders of the digestive tube. In eighty per cent. of cases of infantile convulsions there is some gastric disturbance at the start; generally you can trace the convulsions to an attack of indigestion from taking too much food or eating too often, or to alimentary substances or drinks of an improper kind for infants at the breast. Babes have been known to have fits in consequence of allowing them to eat baked beans before they were weaned. I shall never forget one of the first cases occurring in my practice; an infant nine months old had been put to bed in good health; an attack of convulsions caused me to be summoned. Suspecting that some improper food had been given the child notwithstanding the nurse's assertion to the contrary, I caused vomiting by titillation of the pharynx, when the offending substance came up in the form of a lot of undigested nuts which the nurse had allowed the child to eat.

By the side of the stomach derangements which are so influential in the etiology of eclampsia; there are various intestinal affections—forms of enteritis in particular—which may cause convulsions by their action on the nervous system, either by the fact of the element pain or of the profuse diarrhœa attending them. Constipation, in fact necessarily entails dyspeptic troubles; then under the influence of repletion of the intestines, vomitings supervene which may be accompanied by convulsions. You must bear in mind that constipation may exist even when there are regular stools, the quantity of the alvine dejections being scanty, and insufficient properly to empty the intestinal canal. This is a point which you ought to remember in the prophylaxis of children predisposed to convulsions.

Much less often eclampsia has its origin in the presence of intestinal worms; nevertheless cases of convulsions due to lumbricoides have sometimes been observed. You must bear in mind that the way in which children are affected by these internal parasites is largely a matter of temperament and susceptibility. While one child may have a considerable number of lumbrici in its intestines without suffering the least inconvenience therefrom, another will have convulsions from this very cause. You know also that some cases of epilepsy have been cured by the operation of a tænicide. Such facts are however rare, and it is more often the case that the presence of worms causes only general disturbances, such as oddities in the behavior, nervousness, restlessness, without giving rise to convulsions, pallor of the countenance, or disorders of the general health.

Foreign bodies in the ear or nasal fossæ,

cutaneous excitations, burns, even a fly blister, may be the cause of convulsions in young children. Too tight clothing, the prick of a pin, have been known to bring on an attack of eclampsia. TROUSSEAU in his Clinical Medicine relates cases of this kind.

In a third group of causes, we must place all the acute diseases of childhood attended with fever. Here the convulsions replace the chill or delirium observed so often in the adult at the outset of pyrexia. The diseases which are especially likely at their onset to be accompanied by convulsive accidents are the eruptive fevers, measles, small pox, scarlet fever, then erysipelas and pneumonia.

Attacks of intermittent fever may also provoke convulsions, and sometimes each seisure is ushered in by a convulsive crisis; such attacks present no little danger.

It may be supposed that in these cases the morbid alterations of the blood, by the irritation of the nervous centers thereby produced, cause the convulsions. Hemorrhages, through slight, may do the same.

Thus, the loss of blood produced by incomplete ligature of the umbilical cord, for instance, may give rise to grave convulsions.

I knew a case of a little infant whose untimely death illustrates what I have just said. This child was born with one tooth already through, but as this tooth did not seem to be very firm in its socket, and interfered somewhat with nursing, the doctor extracted it. A hemorrhage ensued, which was not easily stopped, though the amount of blood lost was not great, and the child went into a fit, which caused its death in a few hours. This fact has a lesson for us, for we cannot be too careful how we undertake trifling operations on the new-born child.

I hardly need tell you that the blood may be modified not only in its quantity, but its quality. Thus, besides the special fever poisons before alluded to, which by their irritative presence may give rise to convulsions, there may be uræmic poisoning even in the infant, and children have even been poisoned by alcohol and opium.

I have now only this fact to add to complete what I have to say about causes—that cerebral congestion, of what ever nature, whether associated with an active process such as a sudden chill, or a passive process like what may be observed in the asphyxia determined by broncho-pneumonia, whooping-cough, or croup, may also be the occasion of convulsive accidents.

Such are the causes of essential eclampsia, of convulsive attacks without lesions, at least without primitive lesions; for if by chance you find at the autopsy congestion of the brain, of the meninges, hydrocephalus, or even slight capillary hemorrhages, these are but secondary lesions without any etiological importance.

But I should not do justice to the etiological part of my subject if, along with the immediate causes, I should neglect to speak of the predisposing causes; of that peculiar nervous susceptibility which under excitement finds expression in an eclamptic fit, while a child not having this susceptibility presents nothing abnormal.

The periods of early infancy, of weaning, of dentition, certainly count among the predisposing causes of convulsions, which are rare in children under one month, unless determined by hemorrhages, but are especially frequent during the first two years of life. It seems as though the active development of the nervous system, as compared with the rest of the organism, in children at this early period, is not without influence in the production of eclampsia. It is at these times that the slightest causes: fevers, indigestion especially, readily determine nervous accidents. We must also make great allowance for heredity; intemperance in the parents, hysteria in the mother, must be ranked among the most important predisposing. Thus it is that certain children with permanently irritable cerebra, almost always the offspring of neuropathic parents, children that are habitually uneasy and restless, may, if crossed in their wishes, manifest their nervous irritation by a fit.

Faulty conditions of education and training, urging the growing brain too fast, indoctrinating the infantile mind in subjects and habits in advance of its years (and this is a topic to which, by the way, I called attention in a speech at the late International Congress in Washington), cause an unusual determination of blood to the cerebrum, and it is not surprising under such circumstances of forcing to see severe cerebral disorders set in, and one of the first manifestations thereof may be convulsions.

SYMPTOMS.

What is the habitual physiognomy—what are the principal characteristics of the convulsions of early life? Sometimes these convulsions are general, sometimes they are partial, but, even when they are general, *they are always more pronounced on one side of the body than on the other*: there is never symmetry and absolute likeness in the convulsions of the two sides. The convulsions are often preceded by prodromes; the parents or attendants noticed several hours before the fit that the child was irritable and cross: the face was tinged, there was a wild, odd look about the child; it is not rare, also, that the fit supervenes without any warning at all. Suddenly the child utters an outcry, becomes stiff and loses consciousness: this is the period of tonic convulsions, the face is pale and afterwards congested, the eyes turned upward in their sockets, or present a convergent strabismus, the thorax is immovable, the respiration is, as it were, suspended.

This tonic phase lasts but a few seconds, then appear jerkings of the muscles of the face; the eyes are agitated with irregular movements; the commissures of the lips are drawn to one side and give to the physiognomy a grimacing expression; then the head is thrown backwards, the neck stiffens; while irregular clonic convulsions appear in the superior and inferior members.

During the continuance of these phenomena, sensibility and intelligence are suspended; the little patient may void fecal matters in bed, or pass a few drops of urine, but suppression of the urinary function is the rule.

After one or two minutes, all is over, and consciousness gradually returns, but the infant remains for a while in a state of stupor.

It is rare that the attack is limited to one fit; generally after a while convulsions set in anew, and are succeeded by a state of stupor and of somnolence. This condition, a brief calm interrupted by convulsions (*etat de mal*—veritable convulsive state), may last several hours, several days even, exceptionally more than a week. This is a fact which must not be forgotten, and you must bear in mind from the point of view of prognosis that the convulsions are not necessarily linked to cerebral lesions when they are prolonged beyond a certain time. This mistake is the more easily made from the fact that sometimes there appear certain superadded phenomena, difficult to refer to their true cause; as a sequel of these convulsions certain cerebral lesions may be produced: hydrocephalus, little miliary apoplexies in the cerebral substance. Then you will notice that an eyelid remains drooping, that there is for a time a little weakness (paresis) in a limb, without, however, the intelligence being affected; the child remains nervous, feeble, and has a little strabismus, but it will not do to confound these cases, associated with slight secondary lesions of the cerebrum, with epileptiform convulsions, linked to cerebral sclerosis, for instance.

Sometimes, also, the convulsions are not general, but partial, localized in a limb. In other instances, the child, previously apparently well and in good humor, suddenly loses consciousness for a few seconds; this occurs on two or three occasions, and the parents will tell you that all ended with a vomiting spell.

At other times you notice nothing but a temporary squint, certain convulsive movements in an arm, or slight muscular twitchings elsewhere.

DIAGNOSIS.

How are you to distinguish these convulsive attacks from other accidents of the same order, but linked to different causes?

You were not present at the convulsive seizure, you would have to decide by the history of the case and the sequelæ. If you learned that the child had already had difficulty in walking, if there was paresis of a limb or of one side of the body, suspect cerebral sclerosis; moreover, paralyses consecutive to an attack of essential eclampsia are rare, or at least disappear after a short time. It is, for the most part, by the progress of the symptoms that you will arrive at the exact knowledge of the disease; if it be a case of cerebral sclerosis, the convulsion was nothing but a superadded phenomenon, and you will shortly see supervene cerebral manifestations which generally end with idiocy.

How are you to distinguish eclampsia from epilepsy? You should know, first of all, that in the case of children under four or five years of age, epilepsy is rarely if ever known; therefore, in infants and very young children, this diagnostic difficulty will not present itself; but in older children, convulsive attacks linked to epilepsy take on a singular periodicity. They return every three weeks, then fortnightly; finally, more than any other kind of convulsive seizures they come on in the night time rather than the day. Nor do we observe hysteria except at a time of life when eclampsia is rare; but even if called upon to make the diagnosis, we would readily find certain differential characters. The hysterical patient is already at least from twelve to fifteen years of age; the attitude, the behavior of an hysterical girl are not those of an epileptic; while the latter is generally tranquil, of a disposition a little morose, taciturn, of an intelligence often but little developed, the former, on the contrary, is buoyant, animated, noisy; her deportment is subordinated to external influences the most trifling; she laughs, she weeps, without cause; she manifests incoherencies of language not common to a child of her age; lastly, the hysterical patient, even when very young, shows moral perverseness and is an inveterate liar. She will, moreover, complain of that sensation (more common indeed in older hysterics) which has been designated under the name of *globus hystericus*. There is hyperexcitation of the senses from trifling causes, and if, by chance, the girl has a fit, this will last a long time, one hour, two hours, or even more, and will not present the least irregularity in the appearance of the convulsive phenomena.

If you will remember what I have told you, you will be convinced that generally the convulsive accidents of infancy and early childhood, such, at least, as I have described, are rarely grave; they disappear without leaving any permanently bad effects. I except, however, the convulsions which come on at the close of a severe disease, such, for instance, as those which we observe in the asphyxiating period of whooping cough, capillary bronchitis, and of croup; then they may be looked upon as the almost certain indication of death. But in

all other circumstances be not unduly alarmed, reassure the panic stricken family, and if your diagnosis is correct, if you have been able to detect the real causes of these convulsions which are often so terrifying, you can in most cases hope for a speedy cure.

RATIONAL PHTHISIOTHERAPY.

BY GEO. HENRY CLEVELAND, M. D., PENTWATER, MICH.

Notwithstanding an alarm embodied in the preface to a work entitled "The Forms, Complications, Causes, Prevention, and Treatment of Consumption and Bronchitis," etc., by JAMES COPLAND, M. D., F. R. S., (1861), viz: that "during the last half century physicians have had their minds preoccupied, and their attention carried away, by the recognition of changes of structure, and of palpable organic alterations, from a true estimate of those conditions of vital force, of vascular action, and of the circulating fluids, which constitute the essential principles of disease, which chiefly engaged the deepest consideration of their predecessors, and which guided them to the adoption of appropriate indications and means of cure, and to practical results at least as successful as those achieved by the modern pathologist," the minds of physicians are still occupied, and "their attention carried away" by this same "recognition of changes of structure," and of the palpable,—and particularly the microscopically visible,—"organic alterations." By this preoccupation and attention the medical world of to-day observes such radical changes and advancements of knowledge in the pathology of not only phthisis alone, but along the line of research in the field of cellular metamorphosis, as would astound the investigator of a quarter and half century ago. Granting, however, in that day and age, the practical results obtained by the two schools of thought, touching upon the relief and irrigation of phthisis were not strikingly different; the reason, we feel, can be easily accounted for in the light of our present attainments.

Recent investigations, based upon modern pathological views, together with the practical experience and wisdom of the past, have imbued the ambition for the relief of, and the struggle for the cure of, this dread affection, with new life, and an impetus which, if followed, promises rewards heretofore unattained. We are rapidly reaching that firm standpoint of advantage constructed upon the *specificity of disease*, and *practical knowledge*, from which point radiates the focus we apply.

Of recent years a decided transition has been manifest in the minds of medical men regarding the treatment of diseases of an infectious nature. "Either attention is given to the rendering of the organism resistant against the action of microbes which have entered it; or antiseptic substances are used which shall directly injure them, or, at least, render the tissues in which they have settled less fit for their nourishment and growth."

Countless have been the number and variety of medicines and means introduced and advocated from ages back, and extending up to the present time, for the relief, mitigation, and cure of consumption, but time has disproved the value and utility of all, with but one or two exceptions.

In 1841, DR. JOHN HUGHES BENNETT, of Edinburgh, than whom no man living up to that time had contributed more, or indeed as much, to the establishment of the treatment of pulmonary phthisis upon anything like a sound basis—in a special treatise, introduced to the profession of the world, the use of cod-liver oil as a remedial agent of great value in the treatment of phthisis. Not only did he introduce this agent, but he constantly persevered for years in the advocacy of the merits of the drug. As a result, we have for a period approaching fifty years no other one remedy, or combination of remedies, which has had or continues to enjoy such distinction in the hands of the medical profession of the universe. Its use is extolled by the authorities of all tongues; its results have been observed and commented upon by the ablest investigators. Series of cases of untold number have been published and presented to the profession illustrating the value of cod-liver oil as a *reconstructive agent*, a value superseding in this respect any of its congeners, or any other known substance having essentially a reconstructive effect. It would be an anomalous work indeed that would treat of phthisis pulmonalis without mentioning the value of cod-liver oil.

A high authority of twenty-five years ago says: "It is probable that no remedy for any disease has ever been more generally adopted than cod-liver oil in phthisis, not excepting, perhaps, quinine in ague." Although this was uttered a quarter of a century since, yet the words need scarcely be altered to express the present situation, inasmuch as this remedy to-day, as before stated, stands at the head of the list of medicaments to thwart the progress of this fearful disease. This great reputation has been acquired not by way of having any selective influence upon the specific and essential cause of the disease—upon the tubercle bacilli.

It alone does not remove the disease. It will not produce permanent arrest of the disease. Commonly the disease, under its use, ultimately progresses. The general powers of the system may become very much improved by the administration of the oil, and still the disease progresses. And sometimes, it is well to remember, the remedy disagrees, mainly with the digestive system.

The prime reason of the good which results from the exhibition of cod-liver oil is the *regular* supply to the system of a peculiar hydrocarbonaceous oil, and from this, or the presence of the peculiar alkaloidal ingredients which have recently been investigated, it becomes, above all other fats, adapted the most thoroughly to constitute the molecular basis of the chyle. It, therefore, contravenes by its reconstructive force and power the marasmus, the debility, and the enervation attendant upon the disorganization of tuberculosis.

Possessing now unquestioned facts as to what cod-liver oil does and what it does not do, it remains to discover such agent or agents, as, acting upon a rational foundation, will render the "organism resistant against the action of the microbes which have entered it," or "which shall directly injure them, or, at least, render the tissues in which they have settled less fit for their nourishment and growth."

This, since our more complete, scientific enlightenment concerning the true nature of this, and other affections of like type, has been the aim and ambition of the scientist, the investigator, and the practitioner, *et al*, but not with a reward commensurate with the labor expended.

Recently, however, some striking reports have been made, and results obtained, which draws the tide of attention towards a rational therapy, supported by the enthusiastic and substantial commendation of some of our most active medical spirits, here and abroad. Their statements are moderate (*i. e.* not highly colored), timely, and not comparable to the effusions of over-zealous aspirants to fame and priority. What is better, however, is the *reasonable*, *rational*, and altogether *scientific* basis, which, were it not for our comparatively recent acquirement of the secrets of bacteriology, would elicit wonder that such a happy, yet formidable combination had remained so long unapplied.

So long since as 1830, the use of creasote in pulmonary phthisis was discovered by REICHENBACK, a Moravian. Then, like many another important discovery, it, or the application of it in this direction, remained dormant for upwards of forty years. It then began to receive attention again, mainly by the foreign thought, although DR. BEVERLEY ROBINSON, of New York, began its use in or near the year 1878, and has been engaged in its use since that time. An article from his pen, headed, "Creasote as a Remedy in Phthisis Pulmonalis," occurring in the January, 1889, issue of The American Journal of the Medical Sciences, is pregnant with interesting thoughts.

Creasote (that procured from *Fagus Sylvatica*, or beech wood) has been found by the experiments of KOCH, to prevent the growth of tubercle bacilli in culture media in a dilution of 1 in 2000, while in a dilution of 1 in 4000 growth was greatly interfered with. Although it has been claimed that a dilution of 1 in 4000 would be too irritating for therapeutic purposes, yet *per contra*, it is affirmed that a carbonated creasote solution possessing the strength of 1 in 4000 may be hypodermically injected into a rabbit without any disturbance of the general nutrition. Although the precise degree of dilution to which it is necessary to render the system, or the circulating fluids of the body in order for the production of the result, may not be definitely known, yet it is quite well ascertained within what limits of dosage the benefit accrues, and also within the limits necessary to the avoidance of irritating effects. Aside from a decided anti-bacillary action—which in and through the system, may as yet not admit of unquestioned demonstration, yet withal is highly rational—there exists possibly a cicatrizing and desiccating effect. DR. ROBINSON says: "On two occasions in my own experience, when ordinary care had been taken by a good examiner, bacilli which previously had been present in considerable numbers, subsequent to treatment had notably decreased or completely disappeared. In other cases the examinations made did not permit me to form a reliable judgment in this regard."

This writer acknowledges with candor, in this connection, as follows: "As to whether creasote interferes with the bacilli locally, or through the ciruclation in virtue of its antiseptic qualities, or whether, in addition to its promotion of sclerosis it merely favors general nutrition whilst acting happily upon secondary, though important symptoms, I am not prepared absolutely to affirm."

In a series of cases under the observation of DR. AUSTIN FLINT, the records are defective as regards the influence of treatment upon the bacilli. It is stated that in one case with large cavities it was noted that the number of bacilli was diminished. No other observations were made during or after treatment.

The evidence thus far at hand certainly points distinctly to the future wide spread administration of creasote in pulmonary affections, and let me ask what more natural circumstance than the immediate combination of the old, well-tried, and reliable cod-liver oil, with the comparatively new but equally promising creasote? A combination "devoutly to be wished." In returns, threatening to lend enthusiasm to the most inveterate, iron clad medical stoic.

In the exhibition of creasote it is imperative that it should be in proper dilution on account of its locally irritating properties if used in too crude a state. Between the oil and creasote a good standard has been found to be the pro-

portion of cod-liver oil 4 grammes to creasote 0.65 grammes (3 j to ℥j).

Creasote with cod-liver oil can be given in a very elegant way and quite unobjectionable by means of soluble elastic filled capsules containing of the oil 1 gramme with creasote 0.16 gramme (℥xv-℥¼).*

From this standard of combination or dilution the ratio of increase can be arranged on definite lines. Capsules of this size admit of convenience in swallowing, and that intolerance which is sometimes met with owing to the perverted digestion of debility, and possibly from the previous use of nauseating, so-called patent medicines, and the like, will be very much overcome by commencing with the smaller dose and increasing in definite quantities. This preparation should be taken from fifteen minutes to half an hour after eating, and one can readily perceive how much easier, and less disagreeable, to swallow an elastic capsule, than to take the medicines in open solution, either separately or combined.

ROSENTHAL gives creasote in carbonated water, beginning with 0.1 grammes daily, and increasing up to 0.8 grammes daily. REUSS gives it in pill with balsam of tolu, using about the same quantities. In increasing the quantity it will be better usually to increase, at first at least, the frequency rather than the size of the dose. In using the 1 gramme capsules *ter in die* after meals almost 0.65 grammes of creasote are used daily, with a corresponding amount of oil. Where the meals are arranged with reference to ordinary working hours of the day, such plan would bring doses conveniently near to the hours 6, 9, 12, 3, 6 and 9.

ROBINSON uses the creasote with glycerin and whisky, and also with a vegetable tonic, sherry wine and whisky, but he frequently uses the capsules. He also urges the contemporaneous use of creasote inhalations.

The period of greatest usefulness, and from which the best results are obtained is, obviously, in the first stages of the disease. REUSS does not hesitate to say that so high a percentage as nearly one half of his cases, when taken in season—yet bearing the unequivocal symptoms of phthisis—are rendered cured. Not relieved temporarily, but lapse of time, with disappearance of evidences, indicate a cure.

If, then, upon grounds the most rational in medicine, medicinal substances are found, which, together with such general attention to habits, exercise, food, protection, and general conduct of life known to be imperative or helpful as components to the whole, producing consequences of such an encouraging measure; can we not harbor the reflection of yet further labors, laden with the fruit of research, which will rid this disease from its terrors, and place the interdict of progress upon the ever-increasing mortality returns of phthisis pulmonalis!

*These capsules are manufactured by Parke, Davis & Co., Detroit, Mich., and New York.

TREATMENT OF DYSMENORRHŒA.

BY A. F. WATKINS, M. D., POTOSI, MO.

Painful menstruation is supposed to arise from three main causes; neuralgia, congestion, and mechanical stoppage to the outflow of the blood. In neuralgic dysmenorrhœa, hot baths half hourly, two or three times per day with rest are very soothing to your patient, in a warm bed or sofa and etherial draughts (such as 20 gts. of spiritus ætheris compositus, with 20 of spirits of chloroform, in an ounce of camph. or julep), or sal volatile may be used; or sumbul, in doses of three grains, or hyoscyamus in doses of five grains of the solid extract, Indian hemp, or the inhalation of chloroform or ether, are rather heroic remedies. Morphine may be taken in half grain doses, either by the stomach, or, better still, as a suppository. M. BERNUTZ, of Paris, praises the extract of hemlock in dysmenorrhœa. The root freshly powdered may be given in 4 gr. doses, or the succus conii may be used. Bromide potassium has been much praised by RACIBORSKI in doses of 10 to 20 grains at bedtime, or repeated 3 or 4 times per day. Lupulin is often used in 4 grain doses 3 or 4 times a day. In cases of congestive dysmenorrhœa the application of leeches to the cervix uteri is often useful, four or five leeches put up to the cervix uteri by means of a glass speculum are often all that are required; or the womb may be scarified by a long knife just as is done in ophthalmia neonatorum. Hot water bottles, those of galvanized India rubber are the best quality may be laid over the hypogastrium, and the bowels kept free by enemata, or doses of Epsom salts. As to the rare cases of extremely small os uteri, these are usually accompanied by an undeveloped condition of the uterus. To assert as DR. MARION SIMS does, that the treatment of the majority of uterine diseases should be surgical, seems to me to be absurd in the highest degree. According to that gentleman, who advises incision of the cervix more than even DR. SIMPSON or others, this operation produces surprising and salutary effects in dysmenorrhœa, which in his eye is always mechanical. Incision may give rise to fatal hemorrhage, according to DR. KIDD, in the Dublin Obstetrical Society, 1866. DR. GREAM, of London, says, that the division of the cervix sometimes brings on either a consecutive relaxation, which is prejudicial to gestation or a scar, whereas BARNES in cases of conical cervix, divides the external os uteri, and GREENHALGH and ROUTH say that in a

great majority of cases the stricture is at the internal os uteri. In France and in Germany there are but few who agree with the practice of SIMS and GREENHALGH, and ROUTH in this point. The womb may suffer terribly from these heroic practices, and abscesses in the pelvic cavity may arise from them according to WEST and others.

The introduction of the uterine sound, or of various sizes of sounds, may sometimes do much good in mechanical dysmenorrhœa and the use of tents of laminaria digitata is often indicated until the womb is large enough to let enter a sound or a No. 9 catheter. The hysterotomies of SIMPSON, GREENHALGH or MATHIEW are only required in cases of cicatrix after laborious confinements.

Correspondence.

ANOTHER VIEW OF MATERNAL IMPRESSIONS.

EDITOR MEDICAL AGE:

Dear Sir.—For two years I have been an enthusiastic reader of the AGE, and shall continue as long as it remains the journal it has ever been. I have looked in vain for something to lay before its many readers; but its contributors have always said more than I could, and in a better way than I could say it, hence my long silence. But since so many have contributed to its pages on birth-marks and most especially those who believe in the old women's idea of their cause, I am forced in the vindication of science to break my silence.

It is as utterly impossible for a mother to mark her child in utero as it is for the fowl to mark the young that is in the eggs under her. She may receive such a fright as to cause separation between her and its circulation, thereby producing its premature expulsion. So may the hen get such a fright as to cause her to never return to her nest and thereby arrest development and cause its premature death. There is practically no difference between them in any respect, and technically none in regard to nerve supply. When we advocate such an unscientific reasoning as the possibility of a mother transmitting nervous impressions to her young in utero we show to the world that we believe in ghosts and not in the progressive science of our age. The broad presumption made by DR. LECRONE in the AGE of Feb. 11 is a fair sample of such far fetched and unphilosophical conclusion—that the child had no head because its mother nursed a sore shin for a few weeks before its birth. I wonder what become of all that brain and bone that had previously formed. The blastodermic membrane in its division about the third or fourth week of gestation by some unknown cause failed to give of its third division which forms the brain. Perhaps an embolus in an artery stopped that part of the fœtal development, thereby the collateral circulation forming a nævus instead of a head.

If our good friend had been disposed to attribute the acephalus child to a nervous impression received from any source, it would have been, I think, far more plausible to have laid it to the father who, perchance, might have had a few decapitated spermatazoa in his testicles caused by some newer shock on seeing a decapitated animal (?) Friend L— ask the father in regard to this and see if you cannot charge it to the other side of the house, and not blame the poor woman with everything.

Some months ago I had a case of empyema and a case of perinephritic abscess,,in both of which I aspirated, inserted drainage tubes and finally made free incision before they recovered, which required no little amount of manipulating, the patients' wives being my only assistants. In both of the cases both of them being pregnant made them fear some mark would be on their offspring, as they had to pass through ordeals that many men would shrink from. But when the children were born not a spot or blemish could be found about them.

Stop, gentlemen, and think for a moment that there is not the least nerve connection between mother and child. You are bound to say that the hen or rooster are as capable of impressing their young before they have an independent existence as the mother or father of the child.

If our Creator had made such possible, scarcely any of us would have been as our Maker intended us to be; for where is a mother that goes through gestation without a fright, like or dislike? Birth-marks are mere coincidences that we cannot understand, but were it possible for us to see the fœtus at any time during its development we no doubt could see that these, to some people, witch footprints would be owing to some disease of the circulation, which often occurs in adult life.

Most respectfully,

J. O. LOWRIE, M. D.

TIMPSON, TEXAS, Feb. 20, 1889.

BOGUS AMERICAN DOCTORS IN PARIS.—It is reported that in consequence of complaints entered by several doctors of the Paris faculty, the police are after a number of individuals, mostly foreigners, who unlawfully practice medicine under cover of American diplomas, probably fraudulent. M. Guillot, a magistrate, is collecting evidence in several cases which may be expected to come up at an early date before the Correctional Courts for adjudication.

The Medical Age.

A SEMI-MONTHLY REVIEW OF MEDICINE.

B W. PALMER A. M., M. D., Editor.

—Published By—

GEO. S. DAVIS, Medical Publisher, Box 470.

DETROIT, MICH., MAR. 11, 1889.

Editorial.

ON THE TREATMENT OF CONVULSIONS IN CHILDREN.

There is no doubt that the majority of cases of essential convulsions—the so-called eclampsia—of children, occurring in ordinary practice, are the result of indigestion. The experienced practitioner when called to attend an infant in a fit, instinctively asks himself the question: Is this dentition or is it indigestion? He will very generally be able to trace the convulsion to some error of diet, for teething alone is not often the cause; where the fit has been attributed to teething, it will in most cases be found that the latter was the predisposing rather than the exciting cause, the child during the reflex hyper-irritability of dentition being allowed some improper food.

The leading indication then in a case of convulsions from indigestion is to remove the offending cause. An emetic may be the best thing to give first, especially if there be reason to think that the undigested material is still in the stomach. The child may have been fed with raisins, nuts, candy, figs, baked beans, and the fit may have come on within a brief period afterwards. Here an emetic of alum, sulphate of zinc, ipecac, or mustard and water will speedily bring up the irritating substance. Then, when the stomach is in condition to retain a dose of castor oil, this may be administered to make sure that the entire *prima viae* is cleared of crudities; castor oil has a soothing effect on the irritations of the alimentary canal, and despite its nauseous taste, is one of the speediest and best infantile purgatives that we possess.

But the practitioner is generally called in at a time when the little patient is not in a condition to take an emetic or a dose of castor oil, and the best thing he can do is to fulfil the *indicatio causalis* and to give a couple grains of calomel; put dry on the tongue and washed down with a teaspoonful of water; this dose should be repeated in an hour to produce free catharsis. Calomel is well borne by the stomach, is a sedative to the solar plexus of nerves, and is looked upon by many experienced physicians as specific in infantile convulsions.

There is good testimony to the fact that worms are sometimes causal in the eclampsia of childhood, and Wilkinson in a recent number of the London Lancet relates a case where obstinate and repeated convulsions in a girl fourteen years old, caused by lumbricoides, were cured by a few doses of santonine given with castor oil.

If teething seem to be a prominent factor in the eclamptic seizure—and some children with strongly neurotic tendencies will often, when cutting a tooth, have a convulsion which is more easily referred to this cause than to any other—there can be no doubt as to the propriety of lancing the gums, especially when these are hot and tense and painful, and great relief is obtained thereby.

The second indication is to quiet reflex excitability and allay spasm. This is really in most cases the first thing to be attended to in point of time. The child is in the fit when the physician arrives; the trunk and limbs are jerked in various directions; the muscles of the face are awry with contortion; there are rattles in the lungs and the countenance is livid. Here the physician orders the child to be put into a warm bath of the temperature of 90° F., and to be kept there ten or fifteen minutes; at the same time he applies cold compresses to the head. The child is then removed from the bath and wrapped in a dry blanket and put in its crib; if the convulsions continue, there can be no doubt as to the propriety of ether or chloroform inhalations. These anæsthetics are the most speedy agents which we possess for stopping spasm, ether is absolutely safe and may be used freely; many good authorities, however, prefer chloroform, and regard it as not demonstrated that this anæsthetic is ever dangerous in the eclampsia of either children or puerperal women.* The chloroform or ether is to be pushed till a full anæsthetic effect is produced, and the rigidity or spasm ceases.

As soon as the child can swallow, the emetic or purgative is administered, if it be decided that the cause of the fit is indigestion, and when the stomach is in a fit condition to receive it, a dose of chloral is given. Dr. Eustace Smith prefers chloral to any other remedy given with the intent to arrest convulsions. Two or three grains can be given to a child between six and twelve months old; if the patient be unable to swallow, twice as much may be administered by the rectum in a few spoonfuls of water or of egg and milk. The dose of chloral may be repeated in an hour or two, if the indications are urgent.

Dr. J. Lewis Smith gives his preference for

* Dessau in Medical Record, Vol. xxiii. p. 592

bromide of potassium, which is to be given every ten minutes dissolved in cold water, till the convulsions cease, in doses of three grains to a child of one year, and of four or five grains to a child of two or three years. He relates a case where thirty grains of the bromide was by mistake given in one dose to an infant of eighteen months; the fit ceased at once, and the patient recovered. EUSTACE SMITH speaks favorably of the combination of belladonna along with bromide of ammonium. The former may be given in ten-drop doses of the tincture two or three times a day to a child from six to twelve months old; the bromide may be given to a child of the same age in three or four grain doses every two hours.

There are cases where the eclampsia follows the recession of the rash in an eruptive fever, as scarlatina or measles; here active revulsive measures are needed to call away blood from the nerve-centres and bring back the rash. Here the sinapised pediluvium, or the full warm bath will be found to be of great use.

In some instances the convulsions are the result of exhaustive discharges: here stimulants, as brandy and egg, wine whey, should be administered, warmth should be applied to the extremities and a cold compress to the head; if the cause be a diarrhœa or a hemorrhage, suit able measures should be instantly taken to check the evacuations. DR. DESSAU* speaks favorably of the cold wet pack in convulsions depending on fever, where a high degree of temperature exists; also in summer diarrhœa, he says that the cold bath may be used to advantage; he advises hot compresses to the head in all cerebral affections associated with a condition of anæmia. He has also found the cold douche—temperature 40° F. to 60° F.—applied to the spinal column either while the patient was in the hot bath or immediately after, of considerable service in checking some cases of convulsions.

Convulsions occurring in the last stage of scarlatina are uræmic in their origin, and should be treated with the view of relieving the renal congestion by digitalis and cream of tartar in diuretic doses, and by general baths, and dry cups over the kidneys; a brisk purge of compound jalap powder may both relieve the oppressed kidneys and remove urea.

Among the uncommon remedies may be mentioned nitrite of amyl, recommended by DR. WILLIAMS, of Boston, three to five drops being inhaled by the patient till flushing of the face appears, and spirits of turpentine. CONDIE, a few years ago a leading authority on children's diseases, highly recommends the turpentine. He was in the habit of giving five drops in emulsion to a young infant; this dose was frequently repeated. "This," he says, "will be found to be a very useful remedy in all cases of convulsions dependent on derangement of the alimentary canal, and when the patient can swallow, given by the mouth, nothing will act more promptly as a purgative, while it would appear also to produce a decidedly beneficial impression upon the diseased gastro-intestinal mucous membrane."

* Medical Record, vol. xxiii, p. 592.

COMMENCEMENT EXERCISES AND BANQUET OF THE MICHIGAN COLLEGE OF MEDICINE AND SURGERY.

Amidst music and flowers the plaudits of admiring friends and the good advice of able speakers the class of '89 of the Michigan College of Medicine on the afternoon of February 28th, received its diplomas. The Detroit Opera House where the commencement exercises were held, contained an overflowing and interested audience and looked its brightest and best.

The serious part of the ceremonies consisted of the administration of the Hippocratic Oath by the Dean, DR. J. J. MULHERON, the conferring of the diplomas by DR. HAL C. WYMAN, President of the Board of Trustees, and excellent addresses by HON. GEO. A. ROYCE and DR. W. H. LONG. The latter address we publish in this number of the AGE. The Valedictorian of the Class of '89, DR. W. R SCURR, of Mendon, also delivered a most interesting farewell, paying a glowing tribute to his alma mater.

The exercises were interspersed with music, both vocal and instrumental, of a high order of merit.

The following gentlemen received degrees: GILBERT E. SEAMAN, Alpena, Mich.; HILA A. ALDERMAN, Detroit; HAL M. PARKER, Monroe, Mich.; BYRON HODGES, Taylor Center, Mich.; ELIOT F. HOLCOMB, Southfield, Mich.; CHARLES E. BLEAKLEY, Detroit; EDWIN M. SNYDER, Sebawa, Mich.; GEORGE BLACK, Seaforth, Ont.; RUSSEL W. BROWN, Petersburg, Mich.; WILLIAM R. SCURR, Mendon, Mich.; JOHN G. KIRKER, Greensburg, Pa.

The banquet given by the faculty to the graduating class, which was held in the evening at the Wayne Hotel, was in every way a most successful and enjoyable affair. There were in attendance more than 200 students, faculty and guests, including many prominent citizens and physicians. After a generous collation the following toasts were responded to, PROF. J. J. MULHERON, M. D., gracefully fulfilling the duties of toast-master:

Class of '89. GILBERT E. SEAMAN; Class of '90, HOWARD L. MANN; Class of '91, JAMES SAUNDERSON, B A.; The City of Detroit, C. C. YEMANS, M. D.; Medical Jurisprudence, PROF. H. A. CHANEY, M. A.; U. S. Marine Hospital Service, SURG'N G. W. STONER, U. S. M. H., Detroit; Medical Press, B. W. PALMER,

M. A., M. D.; Canadian Colleges, GEO. A. TYE, M. D., Chatham; Alaska Medicine, PROF. ZINA PITCHER, M. D.; Doctors and Lawyers, MARCUS POLLASKY, Chicago; The Ladies, W. H. H. RUSSELL.

All who were present at the banquet voted it one of the pleasantest they ever attended. The Michigan College of Medicine and Surgery certainly deserves congratulations on the success attending its first commencement exercises.

IDENTIFICATION OF THE MICROBE OF DIPHTHERIA.

It is reported in the British Medical Journal that as a result of investigations carried on at the Pasteur Institute at Paris DR. ROUX, one of the Directors of the Pasteur Institute, and his fellow-worker, DR. YERSIN, announce that they believe that they have identified the microbe of diphtheria. The reports of their prolonged study of the disease are published in the Annales de l' Institut Pasteur, Nos. 11 and 12, 1888. Their conclusions are very interesting.

Among their conclusions is that this microbe acts by secreting a soluble poison, and they have shown that the injection into animals of various doses of this soluble poison produces the divers forms of diphtheritic poisoning; death may be produced in a few hours or after a more or less long period; paralysis which may end fatally or may be recovered from can be produced according to the amount of the injections. As the authors remark, these tardy manifestations are of particular importance; for if at a future time the soluble matters elaborated by the microbes are employed for a prophylactic purpose, it will be necessary not to lose sight of the possibility of these late symptoms. If such vaccines are used, it will not be sufficient to ascertain that there is immediate tolerance, but also to guard against the production of the later and delayed effects. It will be necessary to prove in each case, with as much care as for vaccination by living virus, the harmlessness of chemical vaccination.

Some trials made by M. ROUX, says a writer on this subject in the Journal des Connaissances Médicales, prove that even after a very long time the soluble products of anthrax do not cause any affection in the animals in which they have been injected, but it does not seem to be so either in diphtheria or, as CHARRIN has demonstrated, in the disease caused by the pyocyanic bacillus.

The future, say MESSRS. ROUX and YERSIN, will show, perhaps, that numerous organic affections, of which the cause is not at present clear, are due to delayed actions of this kind. Perhaps, they add, it will be necessary to attribute these effects to many forms of nephritis, and of other diseased conditions of which the true origin is at present unknown.

The next question to which MM. ROUX and YERSIN address themselves is as to the nature of the poison, whether an alkaloid or a ferment. The activity of the toxic matter is much diminished by heat; for example, two cubic centimetres of a certain fluid, when injected under the skin, kill a rabbit; but even when injected into the veins in the dose of 35 cubic centimetres, this solution, if it has been previously heated up to a temperature of 100 deg. C. for ten minutes, produces no symptoms. The injection of one cubic centimetre of a filtered fluid cultivation heated for two hours in a closed tube at a temperature of 58 deg. C., killed a guinea-pig after a long period; after two hours' heating it caused, in the same dose, a little œdema at the point of injection without producing death. The same liquid, not heated, killed guinea pigs in the dose of one-fifth of a cubic centimetre. When in contact with air, the diphtheritic poison appears to lose its toxic properties quickly, but preserves them for a long time when sheltered from air and light in a closed vessel. The microbe is best filtered off through porcelain, and its toxic properties are by this method least impaired. The authors consider that these properties show that the poison is allied to ferments.

As to the question whether it is possible to produce immunity in animals, the authors state that researches now in progress promise an affirmative answer to this question. They also state that their experiments lead them to believe that the most important prophylactic measure is careful treatment of the sore throat of measles and of scarlatina. The mouth and pharynx should be carefully cleaned with carbolic acid, which is the most efficacious agent against diphtheria.

M. PASTEUR, it is reported, entertains the hope that these important researches will be the foundation of others which will permit us to attain a more perfect knowledge of this terrible affection, and to combat it with greater success.

CYCLING AS A THERAPEUTIC AGENT.

DR. OSCAR JENNINGS, of Paris, in a recently published pamphlet makes a strong plea for the bicycle as a means of relieving the ills that sedentary flesh is heir to.

He has brought together from the writings of other medical authors, and from the pages of the newspapers and magazines devoted to cycling topics, a considerable mass of evidence. DR. JENNINGS is an enthusiast, and claims not only that cycling is free from objection, but that it is curative, and in itself a perfect form of exercise. The truth probably is that as an exercise it is inferior to rowing and to riding

on horseback, but superior to most others. The lucky man who—to parody SWIFT'S picture of happiness—has a river at his garden end, and an extra horse to mount a friend, need not trouble himself about cycles; but to that large class who are less fortunately placed they are a great boon.

DR. JENNINGS'S book confirms the impression formed from observation and the perusal of scattered notices in fugitive literature, that cycling is a form of exercise specially useful to men who are growing to be a little more than middle-aged. A man who has followed a sedentary occupation begins to experience increasing disinclination to exertion, chronic constipation, with some stiffness and it may be flying pains in the joints; for such a man a tricycle is capable of accomplishing a great deal; exercise ceases to be a trouble, the bowels become more regular, and the joint troubles, which may be at first a little aggravated disappear.

DR. JENNINGS believes that chronic gout and rheumatic gout may thus be cured, or at least kept at bay, even when the patient has been seriously crippled by several attacks; he also speaks very confidently as to the cure of obesity, if the patient will refrain from gratifying the thirst, which is at first very trying; he even finds some reason to believe that his favorite exercise may be a useful adjuvant in the treatment of early phthisis.

ON THE ACTION OF BREWER'S YEAST IN INFECTIOUS DISEASES.*

In a recent epidemic of scarlatina and of diphtheria, HEER has employed to great advantage brewer's yeast, so highly recommended by the late DR. HEWSON, of Philadelphia, in typhoid fever,† also many years ago extolled by a writer in the Boston Medical and Surgical Journal, as of singular efficacy in malignant sore throat.‡ He has latterly derived so much benefit from it as to warrant him in using it exclusively in these diseases Under brewer's yeast, scarlatina, he says, pursues its course mildly, with very little fever, and no dangerous sequelæ. In diphtheria, the false membranes are rapidly eliminated, and there is no cardiac complication or paralysis. The ordinary dose is a teaspoonful every hour.

This German authority also recommends to employ in diphtheria gargles of yeast, one teaspoonful being diluted in five of water. This medicament does not cause diarrhœa; the digestive functions are even improved under its use. It gives good results in the putrid diarrhœa of children and typhoid patients; the best way to give it under such circumstances is to mix the brewer's yeast with ale in the proportion of one part of yeast to five of ale. Yeast has been employed in cancerous diseases, and has given good results, and HEER reports the complete cure of a case of cancer of both breasts, and another of epithelioma of the tongue! In these cases the yeast was used both externally and internally.

This same physician refers to the benefits of yeast in scurvy, and basing his statements on four hundred observations, declares the remedy to be of remarkable efficacy. In cholera, yeast has given, he says, better results than most other remedies.

HEER deduces from his experience the following conclusions:

1. Yeast is an excellent medicine in the infectious diseases, and its benefits are indisputable in scurvy and purpura.

2. In many cases of advanced pulmonary tuberculosis he in common with other practitioners has succeeded by the aid of this remedy in arresting the fever and staying the induration of the lungs.

3. Brewer's yeast is perfectly tolerated in all conditions; patients may take as much as two quarts a day without inconvenience; they take it as freely as milk.

4. As brewer's yeast is readily assimilable, it is an aliment.

* Deutsch. Med. Zeitung.
† Trans. of Col. of Phys. of Phil., N. S., 1,390.
‡ Boston Med. and Surg. Jour., vol. xlvi, No. i.

Notes and News

The Question of the Contagiousness of Alopecia Areata.—EICHOFF'S attention was directed (Monatshefte für practische Dermatologie, No. 20, 1888) to this question by the comparative increase in a period of some months of his cases of alopecia areata. While previously and subsequently his experience embraced four to six cases yearly, between April, 1884, and March, 1886—a period of two years—thirty-six cases came under his observation. An investigation of these cases led to the following:

1. In a given time there was a remarkable increase in alopecia areata cases, three to four times as many as the usual average.

2. About thirty per cent. were traceable to contagion (from barber shop), and thirty per cent. were apparently of a common, and, therefore, probably contagious origin.

3. About nine per cent. could be attributed to neurotic causes.

4. In thirty-one per cent. no cause could be found.

The author concludes that alopecia areata may have different causes, two of which, the parasitic and the tropho-neurotic, may be said to be now known and generally admitted.—*Amer. Jour. Med. Sciences*, March, 1889.

Influence of the Electric Light on the Eyesight.—DR. DUBINSKI of Kronstadt has had an opportunity during the last ten years of observing thirty cases of a peculiar ophthalmic affection occurring in young sailors whose duty had obliged them to remain in the vicinity of electric lights. The symptoms of this affection, which he proposes to denominate "photo-electrical ophthalmia," may occur during sleep. The patient is awakened by profuse lacrymation associated with intense peri-orbital pain. Photophobia is extreme. Nothing, however, can be seen upon examination except palpebral œdema and peri-corneal injection of a very marked character. With the ophthalmoscope hyperæmia of the papilla is found, and sometimes a venous pulse in the retinal vessels. After a time varying from an hour and a half to three hours these symptoms subside and the patient is able to go to sleep, and the next morning he awakes quite well, with the exception of a certain amount of ocular fatigue such as is caused by reading late at night. Sleep appears to be an indispensable condition for the manifestation of photo-electrical ophthalmia. Thus, in the case of men who have been exposed during the morning to the electric light, when they take a midday nap the disagreeable phenomena wake them up at that time, and not during the succeeding night. Although the patient, when awake, suffers slightly from phosphene, he is quite able to read and write during the evening. The pathological cause of symptoms above described would appear to be a hyperæmia of the optic nerve and some lesion of the nervous filaments of the cornea.—*Lancet*, Feb. 9, '89.

Some of the Abuses of Etherization.—In a paper with the above title published in the Medical Record, Feb. 23, 1889, DR. GEO. F. SHRADY offers the following conclusions as a result of his study of the subject:

1. In commencing the administration of ether the gradual method is to be preferred.

2. Its employment allows the lungs to empty themselves of residual air, prevents coughing and struggling, and places the organs in the best possible condition to receive and rapidly utilize the ether vapor.

3. After the stage of primary anæsthesia is reached, the more pure ether vapor the patient breathes the better.

4. The shorter the time of anæsthesia, and the smaller the amount of ether used, the less likely are the unpleasant sequelæ to occur.

5. The more evenly it is administered the less shock to the patient.

6. Anæsthesia should be entrusted to experienced administrators only.

7. Many of the fashionable efforts to resuscitate patients are not only useless but harmful.

8. The minimum amount of force should be employed to restrain the muscular movements of the patient.

9. Mixed narcosis is often advisable for prolonged operations.

10. The utility of the galvanic battery, in threatened death, is yet to be proven.

11. The most trustworthy means of resuscitating desperate cases are artificial respiration, hypodermic stimulation, inhalation of nitrite of amyl, and inversion of the body.

A Nurse's Outfit for Obstetric Antisepsis.—LOCHNER (Münchener med. Wochenschrift, No. 46, 1888), in a recent discussion upon rules for antisepsis for nurses, proposed by WINCKEL, expressed his belief that the hand bag carried by an obstetric nurse should be of a material which could be boiled. He thinks bichloride of mercury a dangerous substance to give to nurses, and uses a solution of carbolic acid. He prefers wood-wool as a dressing for the cord because it allows air to permeate readily and absorbs moisture.

AHLFELD (Deutsche med Wochenschrift, No. 47, 1888) describes a leather bag, for obstetric nurses, weighing, with its contents, between nine and ten pounds. It contains a metallic irrigator; a bottle of liquid carbolic acid and measuring glass; tampons of sterilized cotton and iodoform gauze inclosed in impervious paper, to be opened only when used; a minute-glass to count the pulse, heart-sounds, and respiration; rubber sheeting three feet square; glass irrigator points or canulæ, for the vagina and rectum; nail-brush; scissors for the finger-nails, scissors for the cord; vaseline and HOFFMANN'S anodyne; a bath thermometer and a fever thermometer, in cases; a female silver catheter, an English catheter; a breast pump and nipple-shield; a dressing for the umbilical cord, and a syringe for use with infants.

This costs, at Marburg, between six and seven dollars (thirty-three marks). The sides of the bag let down, and it may be emptied and thoroughly scrubbed.

Detroit's Flower Show.—Detroit is to have a floral exhibition—the first one in Michigan—on April 2, 3, 4 and 5. All the 24 Detroit florists and many others from various parts of the State will make displays of the rarest and most beautiful flowers, having especially timed their growing plants with the flower show in view. Then, too the ladies of Detroit who are interested in the various city charities are to have booths for the sale of flowers. Young ladies in costume will be in attendance on the booths and the whole affair will be one of the most attractive exhibitions Detroit has ever witnessed. The entire net proceeds of the flower show are to be divided equally among the 21 charities represented in the enterprise.

Arrangements have been made for excursions from all parts of the state to Detroit at the time of the exhibition, and the details as to special rates of fare may be learned by applying to the local ticket agents. The exhibition originated with MR. W. H. BREARLEY, of the Detroit Journal, who acts as general manager. Col. FRED. FARNSWORTH is the secretary and MR. FRANK D. TAYLOR is the treasurer.

Very Hot Compresses in Surgical Practice.—DR. I. I. NASILOFF, in the Vrach, gives an account of several cases of inflammation of the lymphatic glands which he treated with marked success by means of very hot compresses. The compress consisted of a fourfold piece of linen, rather larger than the gland. It was dipped into water at a temperature nearly or quite equal to 212° F., wrung out, and applied quickly over the glands, its own temperature being then from 140° to 165° F. These applications were made morning and evening, the compress being allowed to remain on, covered over with cotton wool for about fifteen minutes. The applications produced severe pain, but this did not last long, though sometimes not only redness, but a blister was caused. The treatment was continued for about a fortnight. It was found that it very soon began to promote absorption. It was noticed that the earlier the treatment was adopted the more effective it showed itself.

The Removal of Cerumen and the Prevention of Consequent Furuncles.—LOWENBERG ("Praticien"; "Gaz. hebd. des sci. méd.") thinks that, in view of the liability to the formation of a furuncle after the removal of a plug of cerumen from the ear by simple syringing, the mass should be treated previously for a day or two by instillations of an antiseptic solution made after the following formula:

> Boric acid, 7 parts.
> Glycerin,
> Distilled water, āā 100 parts.

The solution should be warmed and dropped in from a test-tube. It is to be applied twice a day, the liquid being allowed to remain in the ear for fifteen minutes. The patient should be informed that this may increase his deafness for the time being, on account of an augmentation of the plug by imbibition, but it softens the mass and facilitates its expulsion.

Menstruation a Contraindication for the Administration of Antipyrin.—DR. H. HUCHARD reports in the Revue Générale de Clinique et de Thérapeutique, Jan. 24, 1889, the following case: A few months ago he administered to a woman suffering from severe dysmenorrhœa fifteen grains of antipyrin. After a short time the menstrual flow ceased, the patient being taken with a severe chill, with chattering of her teeth, and the extremities and face becoming cold and cyanotic with repeated fainting fits and syncope. Soon the face became red and flushed the pulse small and soft, the patient complained of severe headache. She recovered. The author observed several other cases with less severe symptoms and has since then not administered antipyrin during the first two or three days of the catamenial epoch.

Cotton Impregnated with Biniodide of Mercury.—The following formula ("Pharm. Ztg."; "Progr. méd.") is given for the preparation of this variety of antiseptic cotton:

> Biniodide of mercury, 8 parts.
> Iodide of potassium, 3 parts.
> Glycerin, 120 parts.
> Distilled water, to 2,400 parts.

Absorbent cotton is to be soaked in the solution and then dried.—*N. Y. Medical Journal*, Feb. 23.

Vaccination Against Cholera.—It is stated that DR. GAMALEIA, of Odessa, who claims to have discovered a method of vaccination against cholera, will go to India next month to pursue his investigations.

Book Notices.

ELECTRICITY IN THE DISEASES OF WOMEN, with Special Reference to the Application of Strong Currents. By G. BETTON MASSEY, M. D., Physician to the Nervous Department of Howard Hospital; Late Electro-Therapeutist to the Philadelphia Orthopædic Hospital and Infirmary for Nervous Diseases, Etc. Published by F. A. Davis, Philadelphia and London. 1889. Cloth. pp. 210. Price, $1.50.

This work has as its basis some papers contributed by the author to the Philadelphia Medical times, which have been elaborated and had added to them many new chapters.

The teachings of APOSTOLI, ENGLEMANN and LAPHTHORN SMITH are chiefly followed, and these are already well known to our readers. It is rather in the many details that the author gives didactically and by illustration with cases he has treated that will make it of value to others than specialists.

The great difficulty in successfully using electricity, and particularly the strong currents after the method of APOSTOLI is want of expertness and skill and judgment in their application. While these qualities can not be acquired entirely from books, the careful description of the necessary procedures as minutely explained by DR. MASSEY is an aid that can not be dispensed with. It is believed therefore that this book will help popularize among general practitioners the intelligent application of electricity in gynecology.

INTERNATIONAL POCKET MEDICAL FORMULARY—WITH AN Appendix Containing Posological Table: Formulæ for Inhalations, Suppositories, Nasal Douches, Eye Washes and Gargles: Hypodermic Formulæ; Table of Hypodermic Medication; Use of Thermometer in Disease; Poisons and Their Antidotes: Post Mortem and Medico-Legal Examinations; Artificial Respiration; Ligation of Arteries; Obstetrical Table; Urinalysis; Differential Diagnosis of Eruptive, Typhoid and Typhus Fevers; Tables of Pulse, Temperature, Respiration, Motor Points. Etc. By C. Sumner Witherstine, M. S., M. D., Etc. Published by F. A. Davis, Philadelphia. 1888. pp. 269. Price $2.00.

The comprehensive title of this book is sufficiently indicative of its contents and purpose. It contains, conveniently arranged for reference, a great variety of information of value to the physician.

Although it is the custom of reviewers to disparage such compilations as being misleading and apt to be adhered to too closely, tending to make the physician relying on them a routinist, they certainly must meet the requirements of many as there are many of them published to meet the existing demand.

The book is got up in visiting list form, bound in leather with flaps and is interleaved with blank pages for recording the favorite formulæ physicians may wish to add to it.

THE YEAR BOOK OF TREATMENT FOR 1889. Being a critical review of the practice of medicine and surgery during 1888. Published by Lea Bros. & Co., Philadelphia: 1889; pp. 344.

The purpose of this work is to afford a record of the progress made in the treatment of disease for the past year.

To effect this purpose the medical literature of the world has been laid under contribution, and many eminent writers have contributed their quota to complete the work.

It seems to us impracticable in the limits of such a book to adequately present anything like a complete account of progress in the treatment of disease even for one year. The annual of the Universal Medical Sciences has attempted this Huculean task, and, to our mind, not with a large share of success, though more completely than this year book.

It can not, however, be gainsaid that such compilations have their proper place in medical literature, and as long as the great mass of medical literature is unaccessible to the average physician will be sought after and used.

HAND BOOK OF THE DIAGNOSIS AND TREATMENT OF DISEASES OF THE THROAT, NOSE, AND NASO-PHARYNX. By CARL SEILER, M. D., Instructor in Laryngology and Lecturer on Diseases of the Upper Air Passages in the University of Pennsylvania; Chief of the Throat Dispensary at the University Hospital, etc. Third edition. Thoroughly revised and enlarged. Illustrated with two lithographic plates containing ten figures and one hundred and one wood engravings. Published by Lea Bros. & Co., Philadelphia. 1889. Price $1 75.

This work is already in its earlier editions, familiar to our readers. The present edition has had added to it a new chapter on the physiology of the voice and articulate speech, and also one on vaso-motor coryza and hay fever.

The illustrations have been increased by twenty-four and by two well executed colored plates. It is a well written manual for the general practitioner who desires a detailed guide to the diagnosis and treatment of this very prevalent class of affections.

ADDRESS OF BARON FERDINAND VON MUELLER, President of the Section of Pharmacology, Intercolonial Medical Congress. Melbourne. 1889.

We have read with great interest the scholarly address of PROF. VON MUELLER whose attainments are now almost as well known in America as in his own country, through his work on Select Extra Tropical Plants—Readily Eligible for Industrial Culture or Naturalization with Indications of Their Native Countries and Some of their Uses. The address before us is an epitome of progress in pharmacology and the allied sciences and an inspiration to further advance and to the practical application in therapy of the knowledge already gained.

Therapeutic Brevities.

Cocoanut as a Vermifuge.—Professor Paresi, of Athens, when he was in Abyssinia happened to discover that ordinary cocoanut possesses vermifuge qualities in a high degree. He took, one day, a quantity of the juice and pulp and shortly afterward felt some amount of gastric disturbance, which, however, passed off in a few hours. Subsequently he had diarrhœa and was surprised to find in the motion a complete tænia, head and all, quite dead.

After returning to Athens, Professor Paresi made a number of observations which were most satisfactory, the tænia being always passed and quite dead. In only one case was the head wanting. He orders the milk and the pulp of one cocoanut to be taken early in the morning fasting, no purgative or confinement to the house being required.—Lancet, August, 1888.

A correspondent of the Times, of India, writes that the cocoanut has been used as a vermifuge in India for probably forty generations by the beef eaters of the country, and is so well known there as a means of expelling the flat worm, that he cannot conceive how information of the fact has not reached England before. When properly prepared and intelligently administered, so says the writer, the cocoanut is equally efficacious with male fern oil, kousso, pomegranate root, or turpentine, while it is as pleasant to the palate as they are offensive.

A Palatable Preparation of Salicylate of Sodium in Rheumatism.—In five hundred and thirty cases of acute rheumatism collected by the British Medical Association, treatment with salicylate of sodium failed in but twenty-

four. In prescribing the salicylate of sodium, it is well to know that a pleasanter and more efficient preparation can be secured by prescribing the acid neutralized by sodium bicarbonate, than by using the commercial salt. A solution of five scruples of salicylic acid in two ounces of mint water, to which is slowly added one drachm of bicarbonate of soda in two ounces of mint water, makes a mixture of which one tablespoonful represents fifteen grains of sodium salicylate. Prepared in this way, the remedy is more palatable on account of the carbonic acid present, and it seems to be more efficient, possibly because of the superior powers of the nascent salt.—*Pittsburg Med. Review*, Feb., 1888.

The Relative Value of Opium, Morphine, and Codeine in Diabetes Mellitus.—Codeine, says Fraser (Brit. Med. Jour.) January 19, 1889, 118), is in its important actions only a weak morphine diluted by the addition to it of methyl. As it has been so largely used in the treatment of diabetes, he has made some clinical experiments with it in this disease, comparing it with the action of opium and of morphia. These seem to indicate that codeine is a less powerful remedy in diabetes than either of the other drugs, and to confirm the view that in its therapeutic value it ranks as a weak or diluted morphia. As its cost is about three times that of morphia, and as the large demand for it has led to its being largely manufactured from the latter drug, and being, therefore, an artificial product, there should be more clear evidence of its superiority to justify its administration in this disease.

Cascara Sagrada with Salicylate of Soda in Rheumatism.—Cascara sagrada has been on trial for several months as a remedial agent for rheumatism, and from the number of reports given there is no longer any doubt of its efficiency. Those who have tried mixing cascara sagrada and salicylate of soda together have been delighted with the results. The following prescription makes a perfectly clear mixture, and one that is not unpleasant to the taste:

℞ Fl. ext. cascara sagrada, 2½ dr'ms.
Sodium salicylate, 4 dr'ms.
Aqua aurantii florum, 2 oz.

M. Sig.—Teaspoonful every 4 hours.—*Ala. Med. and Surg. Age*, Feb., 1889.

Vaginal Alimentation.—A recent writer in the Weekly Medical Review calls attention to the absorptive power of the vaginal mucous membrane, so that this canal may be utilized when food cannot be taken by the mouth. The vagina may be employed to supplement rectal alimentation, or the former may be relied upon alone. The food must be digested thoroughly before it is injected. The vagina is more tolerable of food than the rectum, so that vaginal alimentation may be continued for an indefinite period.

Juniper Berries as a Diuretic.—The inspissated recent juice of common juniper berries is highly praised by Dr. Goldschmid, and is recommended by Prof. Vogel, of Dorpat, as the best diuretic for children. While being most effective, the remedy is exceedingly mild and altogether free from any unpleasant accessory effect. Two or three teaspoonfuls should be given daily, diluted with water and sweetened with sugar. Young patients take it very readily.—*British Med. Journal.*

Medical Progress.

NOTHNAGEL ON THE TREATMENT OF MIGRAINE.—Nothnagel in discussing in the Medical Press and Circular the treatment of migraine, has this to say: If you look through medical handbooks you will find an endless series of drugs and methods recommended for the treatment of this disease, the real value of which is frequently nil. You must first of all distinguish between medicines that are employed for the purpose of radical cure of the disease, and such as serve only to relieve attacks. Amelioration is gained by maintenance of absolute rest, and patients turn to this instinctively when they, as already mentioned, shut themselves up in a darkened room, because it does them good. If they feel hot Leiter's cooling apparatus may be recommended, applied to the head or neck. You must further see to excitation of the vascular innervation. I have already mentioned the uselessness of emetics. With regard to other means, which were formerly given frequently, and which have not yet dropped out of use, I mention arsenic and morphine only. Nitrite of amyl in doses of three to four drops on a handkerchief and inhaled is much thought of. You stop these inhalations, however, as soon as the patient's face begins to redden, and a feeling of giddiness comes on. You know that it was determined by a series of physiological experiments that nitrite of amyl produced dilatation of the blood-vessels in the region of the head, that it acts indeed upon the whole musculature, but chiefly on that of the head. The second remedy that in many people at times gives relief is sodium salicylate. There are people who know how to make the attack bearable if they cannot stop it altogether, by taking one, two, or three grammes of sodium salicylate taken rapidly one dose after another, either alone or with morphine. A third remedy that may occasionally shorten an attack is antipyrine. You give a gramme, and after one to two hours another gramme. If success is not attained with these three remedies, you try antifebrine in doses of 0·25 to 0·50 gramme twice or thrice daily; if the patient will bear it you may go up to 0·50 gramme for a dose. You must proceed very cautiously here, however, as poisoning not unfrequently takes place. So much for the treatment of the attack itself. The question as to how migraine shall be radically cured is much more difficult. There are people who have suffered from the disease from puberty (as a rule it is rare earlier) up to forty years of age. After this period it generally ceases; in females it ceases with the menopause. We must before all things study to satisfy the indicatio causalis. If the patient is anæmic, we send her to Franzensbad, to Pyr-

mont, to the German Ocean. If you have to deal with nervous people you commence treatment for neurasthenics, strict diet, regulation of the mode of life, tepid and cold water baths, according to the case, all mental and physical excitement must be avoided. In many people good results may be observed by galvanization of the sympathetic of the neck, or of the medulla oblongata. The results of this treatment are frequently nil, but when all means fail I would always return to the galvanic current. Of the continuous remedies with which something can now and then be done, Fowler's solution is worthy of mention. Two preparations that have become very fashionable during the last few years, and which indeed possess powerful properties, are the nitrites, which we give contiunously; these are, sodium nitrite and nitro-glycerin. As to the last named, I must remark upon its dangerousness. Doses of 0.001 grm. should only exceptionally be exceeded. You prescribe it in the form of tablets, as are met with in the shops, or in spirituous solution. You may increase the dose slowly, in the first week, 0.001 grm. in the morning only, in the second week the same dose morning and evening, in the third week three times a day, in the fourth four, and the fifth, five. I would ask you to mark well, however, that if you reach to 0.005 grm. daily never to increase the single dose above 0.001 as the misuse of the drug produces symptoms of intoxication; these are headache, congestion of the face, violent giddiness, vomiting. If the patient gets giddy in the fourth week from doses of 0.004, and the symptoms described make their appearance, you stop the medicine completely, or go back in the dose and again increase. By patient treatment continued for months, improvement may sometimes be obtained. There are cases that resist this treatment very obstinately, and sometimes a result is seen from a treatment altogether capricious. Some send patients to mountain regions, to the Engadine, to St. Moritz, etc., or to the seaside; the sea air sometimes acts very beneficially. There are cases also in which the attack is provoked by digestive disturbances; these are cases in which the patients are sent with good result to Carlsbad, Kissingen, Vichy, etc. A favorable influence is sometimes seen from a complete change of diet, I have seen several cases of old obstinate migraines, where the patients suffered fearfully, and I had employed every possible means, and yet I believe I have done the most for them by ordering vegetarian diet. It is not necessary for me to tell you that for the normal individual vegetarianism is a piece of stupidity, a freak, that has no physiological basis, but it has here been of some service. It is not certain why this diet has many times acted so well in migraine, unless a special circumstance acts along with it, that is the avoidance of alcohol. (Vegetarians are, as is known, mostly total abstainers.) In any case, I can only say that you may look upon this as a last resource, and that you may try it when all others fail. I would very much recommend milk diet, either warm or unboiled milk, milk with rice, unboiled or boiled, sweet or sour milk any way you like. The result is always the same, often an unexpectedly favorable one.

THE MANAGEMENT OF RHEUMATIC DISEASES.—Dr. M. H. Henry contributes to the Dietetic Gazette an article in which he reaches the following conclusions:

There is no such thing as a specific for the cure of rheumatism. There are no baths or waters that will afford more than relief, and then only when taken and associated with a strict regimen of diet suggested by the personal experience of the sufferer, or under the advisement of a well-educated, largely-experienced general practitioner of medicine. Climate and clothing will assist.

The best diet in quantity and quality is that which affords the essential nourishment and most perfect assimilation. The lesser the tax on the organs of digestion the better the chance of a good and easy assimilation. This advantage can be aided by a judicious selection of the food best adapted to individual cases and additionally assisted, at times, by artificial aids, such as the peptonoids, when the powers of digestion have been impaired.

Moderation in mental and physical exercise and a strict observance of the laws of hygiene of everyday life will accomplish all that is possible of attainment in the present state of our knowledge of the nature of rheumatoid affections. The disease is caused, doubtless, by poisonous substances that are not eliminated from the system through the normal channels. The great secret of the election of certain elements to form and maintain the integrity of certain tissues has not yet been discovered; when that is accomplished the deviations of some of these elements from their natural courses may be explained and the problem of the eccentricities and cause of rheumatism and its allied diseases establish the practice of medicine not simply as a limited art, but as a branch of science.

THE TREATMENT OF SKIN DISEASES.—On consulting any standard work on skin diseases, in search of advice which will help us to cure our patient suffering perhaps from some long-standing disease of this kind, we will find no end of prescriptions recommended under the particular heading to which we turn. We may try the first of these, and each of the following prescriptions in rotation, and yet fail to cure the case. And why? Because we have failed to remove the cause, which all the time is silently but surely working as hard in the direction of disease as we are working in the direction of cure. We think that the study of diseases of the skin is rendered a great deal more obscure and puzzling than there is any need for, by the almost endless nomenclature with which the slightest variations of one and the same disease are burdened. We venture to offer the following remarks on the treatment of diseases of the skin, in the hope that we may clear certain principles to guide the practitioner in the management of cases which too often baffle all his skill. The simplest and most practical classification, it seems to us, is that based on their origin. All, or nearly all, skin diseases are due to:

1st. Parasites, animal or vegetable.

2d. Specific or constitutional disease, either inherited or acquired.

3d. To disorders of the digestive functions.

In the first class alone have local applications any real curative power. In tinea tonsurans, tinea circinata and tinea versicolor, etc, the disease being due to a micro-organism, situate generally in the hair follicles, it suffices to introduce a germicide to the bottom of the latter to put an end to the disease. The most convenient remedy for this purpose is the dilute nitrate of mercury ointment, about one in eight, thoroughly rubbed in, which is used with so much success by Dr. Stephen Mackenzie, at the Skin Department of the London Hospital. If the parasite be an animal, as scabies, sulphur ointment works like a charm, if properly applied, as at the Hospital St. Louis, at Paris, where some hundred cases of scabies are not only treated but cured every morning; the patient being given a hot bath, with soft soap, and then thoroughly rubbed with sulphur ointment, during which time his clothing is being roasted in a specially constructed oven, whence it is returned to him thoroughly disinfected by the time he has gone through his treatment.

When the disease is due to syphilis, it is only wasting time to treat the case as a local affection of the skin; you may spend years trying lotions and ointments, and not do what can be surely done by means of mercury in as many weeks. By far the largest number of skin diseases in our experience are due to disorders of digestion and assimilation. For instance, if food is not digested it will decompose; and the products of decomposition will as surely be absorbed. Acting as foreign matters in the blood, they are gotten rid of by the excreting organs, one of the principal of which is the skin. The products of the sweat and sebaceous glands are thus rendered acrid and irritating, with the result of blocking up their channels and causing retention of their secretions and excretions. In some cases the sweat and sebaceous matter directly irritate the sensitive papillæ of the skin, causing itching; in other cases, where there is not sufficient of the products of putrefaction to cause disease of the glands of the skin, there may yet be enough of them in the blood to irritate the sensitive nerve terminals in the papillæ of the skin, causing an itching in the flesh, as the patients say. As examples of the former, may be given eczema and acne and of the latter, urticaria and lichen. Thus it happens that eczema, which is one of the commonest diseases of children, and is nearly always due to gross errors in feeding, or over feeding, may generally be promptly cured by putting the child on a proper and rigorous diet. In a future article we shall have something to say on the feeding of children, but in the meantime we cannot too strongly insist on more attention being paid to this matter by any one who undertakes to treat diseases of the skin. If the case has gone on long enough to produce an inflammatory deposit in the true skin, arsenic may be required as an alterative to promote absorption, but otherwise some simple antacids and stomachic such as Gregory's Mixture, or rhubarb and soda mixture, will render the secretions alkaline again, when the disease will disappear in most cases of its own accord. Even in skin diseases due to vegetable parasites, attention to the digestive functions is an important element in the treatment, for where the carrion is, there will the vulture be; and if the system is saturated with the products of decomposition, it is in the very best condition for falling a prey to microspores. We trust that some of our busy readers will put the classification of skin diseases, laid down at the beginning of this article, to a practical test, for we feel certain that they will find it a good one to work on.—*Canada Medical Record*, Feb., '89.

THE MEDICAL TREATMENT OF PERITONITIS.—Dr. John H. Musser has an article in the University Medical Magazine for February, 1889, in which he protests against the idea that the disease in question is properly amenable only to surgical treatment. "We cannot," he says, "but look askance at the extraordinary surgical activity that prevails"

The summary of the cases, all in private practice, from which his conclusions were drawn, is as follows:

Total cases	29
" deaths, including pleuro-pneumonia	3
No. of puerperal cases	7
" deaths	3
" non-puerperal cases	22
" deaths	0
No. of times laparotomy or other surgical means employed:— In puerperal cases	1
" non puerperal cases	3
Total	4
No. of deaths from laparotomy, etc	0
" recoveries without operation—Non-puerperal	19
" " —Puerperal	3

In short, of twenty-two cases, three-fourths, certainly one-half of which were desperately ill, recovered from peritonitis, operative interference being necessary in three only.

Method of Treatment.—1. Local blood-letting until pain is very much relieved. Better too much than too little blood abstracted. Three to fifteen Swedish leeches, according to age. If in progress more than forty-eight hours, a large blister. Both of the above to be followed by hot applications, stimulating liniments, as turpentine stupes, if bleeding or blisters not used.

2. Liquid diet absolutely, stimulants administered freely to prevent collapse, to lessen its severity and to prevent tympanitis. In severe cases whiskey and water alone, until the most urgent symptoms subside. Cracked ice, lime water, champagne iced, are used for thirst or vomiting, but their value is questionable; indeed, sips of hot water or hot whisky and water are generally preferable. Freshly made Koumiss has been of wonderful service, even after vomiting has set in.

3 Calomel in small doses, hourly, until the bowels are moved; then combined with opium in small amounts, to prevent diarrhœa, until ptyalism is secured. If the evacuations produce relief, as is often the case, the ptyalism need not be induced. One eighth to one half of a grain of the calomel is used, and has the advantage of being retained usually, even if vomiting is obstinate, while it frequently allays this troublesome and weakening symptom. Inunction may be required for mercurialization.

4. If seen early, aconite to children and veratrum viride to adults, is given until the pulse-rate is lessened. With veratrum particularly a cool, moist skin, a lower pulse-rate and fall of temperature, which should be brought about in twenty-four to forty-eight hours, are

followed by relief to the local symptoms. Three to six drops of the veratrum (fluid extract), hourly usually suffices.

5. To relieve pain, morphia, hypodermically, in small doses, as infrequently as possible. It seems better to combine atropia with it for obvious reasons. Twice daily often suffices, with one-fourth, one eighth, or one-twelfth of a grain. When an opiate is combined with calomel, the morphia can be withdrawn generally. If morphia disagrees, as one often finds it to do, codeia will often suffice, given by the methods suggested by Brunton.

6. If the bowels are not opened in forty-eight hours by the calomel, if the cause is not one of strangulated hernia or acute obstruction of the bowel by a twist or by adhesion by a band, an enema of warm sweet oil (Oj) and then of tepid water are used with extreme care. It is undoubtedly of service to have the bowels moved as soon as possible. That peristalsis does not do as much harm as is usually taught, we know, because diarrhœa attends some cases of peritonitis, as we have seen more particularly in pericæcal abscess. Moreover, accumulations of gas are prevented, a thing highly desired. Indeed it may be put down as a cardinal rule in therapeutics that in all affections of or about the tubes or channels, a patulous state of the canal must be obtained if possible.

7. There is no doubt, even when on the verge of collapse, that life can be saved by persistent and active stimulating medication. This must usually be by subcutaneous injection. Whiskey, digitalis, atropia, and amyl nitrite, all have been of service.—*Boston Med. and Surg. Jnl.*, Feb. 7, '89.

Treatment of Nasal Affections.—Dr. Cozzolino, of Naples, recommends for the various affections of the nasal passages the following compounds:

For scrofulous rhinitis.

℞ Sulpho-carbolate of zinc, grs. v.
Salicylate of bismuth, grs. lx.
Iodol, grs. vi.
Tannate of zinc, grs. xxx.
Powdered talc, grs. cl.
M. Use as a snuff.

Chronic catarrhal rhinitis.

℞ Powdered alum,
Borax, ää 30 grs.
Menthol, 3 grs.
Tannate of zinc,
Tannate of bismuth, ää 45 grs.
Lycopodium, ʒ ij.
M.

or

℞ Salicylate of zinc,
Tannate of bismuth, ää ʒ j.
Powdered borax, 30 grs.
Salol, 23 grs.
Powdered talc, ʒ ij.
M.

Simple acute catarrhal rhinitis.

℞ Chloride of ammonium, grs. 45.
Salicylate of sodium, grs. 30.
Chloride of potassium, grs. 45.
M. To be used as a snuff.

Hyperæmic swelling of the nasal mucous membrane.

A frequent cause of reflex disturbances.

℞ Glycerin,
Water, ää ʒ iv.
Alcohol (rectified), ʒ iss.
Menthol,
Cocaine, ää grs. 3.
M. Use three to four times daily.

Very acute coryza

℞ Water,
Alcohol (rectified), ʒ iv.
Carbolic acid, ʒ ss.
Menthol, grs. iv.
Salammoniac, grs. 23 to 30.
M. Inhale.

Powders are best adapted to treating the nasal passages, as they remain longest in contact with the mucous membrane.

For epistaxis, the best new surgical remedy is the hot douche of 122° to 140° F.—*Bull. Med.*, and *Deutsche med. Wochenschrift*, Jan. 24, 1889.

Nature and Treatment of Diabetic Coma.—Dr. Stradelmann, of Dorpat, in a recent article in the St. Petersburgische Wochenschrift, points out the great similarity which seems to exist between the coma of diabetes and the condition produced in herbivorous animals by inducing acid intoxication. Amongst other points, he refers to some analyses by Minkowski, of the gaseous contents of the blood. In the normal condition, the blood of the rabbit contains 25 per cent. of carbonic acid; but when the animal is suffering from artificially induced acid intoxication, the carbonic acid is diminished. Thus in one instance Minkowski found it 16·4 per cent. with a moderate degree of intoxication; when the latter was increased, the percentage of carbonic acid fell further, first to 8·8 and finally to 2·9 per cent. In order to compare this with the gaseous changes in the blood of diabetics, he examined the blood of a patient before and during coma, the carbonic acid being respectively 17.0 and 3 34 per cent. In order to ascertain whether this diminution of the carbonic acid in the blood was merely due to coma as such without reference to its cause, he examined the blood of a comatose patient, not a diabetic, whose condition was due to meningitis. Here the carbonic acid amounted to 28·2 per cent. The acid existing in diabetes appears to be oxybutyric acid, which in some cases appears in the urine to the extent of something like three ounces per diem. Some years ago Dr. Stadelmann found a new acid, which he believed to be crotonic acid, in considerable quantity in certain cases. He now, however, considers it merely a substitution product from oxybutyric acid. The indications for treatment supplied by these views are of course to combat the acid by large quantities of alkali. Several attempts have been made to treat diabetic coma by injecting into the veins from one to four ounces of carbonate of soda dissolved into about four pints of water, with a little chloride of sodium. In only one instance, however, has this proved successful, and unless it is done very early no good result can be fairly expected of it. It is found that the urine

in twelve hours after the injection is intensely acid. Better results are to be obtained in attempting to ward off coma by giving alkalies freely. Thus Dr. Stadelmann prescribes about an ounce of tartrate or citrate of soda dissolved in about half a pint of soda-water two or three times a day, and has found great reason to be satisfied with this line of treatment. Of course, if coma should come on, he would have recourse to alkaline intravenous injections without loss of time.—*Lancet*, Feb. 9, 1889.

PURE AIR FOR PNEUMONIA.—An interesting article under the title "Pneumonia: Its Increasing Death Rate," by Gouverneur M. Smith, M. D., recently appeared in the Medical Record. The closing paragraphs are as follows:

"It is clear, from what has been said, that in the treatment of pneumonia a superabundance of pure air is specially indicated. The patient's breathing apparatus is only partially performing its functions, as the diseased parts of the lungs are substantially useless. The working portion must perform the work of two lungs for a week or ten days in order to maintain the blood in proper condition to sustain life. The patient requires purer air and vastly more air than one in sound health. In estimating the amount of genial, and possibly moistened air which should gently and freely pass through the sick-chamber, allowance should be made both for the requirements of the patient and for the requirements of the attendants. The latter should be as few as possible, in order to lessen the chances of aerial contamination.

"Our atmosphere at times is harsh, but it always contains a life giving element. When exposed to its inclemencies, care must protect from its bitterness, while extracting its sweetening oxygen. When admitted to homes, it can be artificially tempered as a boon to the shorn and to the unshorn. While remedies often behave benignly to human economy, nevertheless, pure air, as a remedial agent in the management of pneumonia and of other disorders, both acute and chronic, has ever been a more important ally of therapeutics than any panacea offered by alchemy, or any hobbledehoy presented by modern chemistry.

"Physicians will constantly meet with cases where, owing to the surroundings of the patients, it is impracticable to carry out the best methods of treatment. If a physician, however, through inadvertence on his part, allows a patient to die from want of fresh air, he deserves a stigma as ignominious, if not as heinous, as that which four centuries ago attached itself to Richard, Duke of Gloucester, for the crime of smothering princes in the Tower of London."—*Boston Med. and Surg. Jour.*, Jan. 31, 1889.

INDICATIONS FOR ADONIDIN.—Adonidin is a glucoside obtained from *adonis vernalis*, and has been before the profession for some time as a cardiac tonic. It has gradually found a place in the relief of heart troubles, and makes an important addition to our materia medica. Its action is said to be exerted especially upon the heart, and so far its action upon the bloodvessels has been scarcely perceptible. Its diuretic action is comparatively slight, but it seems to occupy a position in properly selected cardiac affections, which is not taken by either digitalis, strophanthus, or convallaria, and any information regarding its clinical application is therefore particularly welcome. The dose of this glucoside ranges from one sixth to one tenth grain, but from the fact that the larger dose at times causes more or less headache, the smaller dose will doubtless prove more suitable for the general class of cases. If the drug is well tolerated, and good effects follow its administration, the frequency of the dose may be readily increased.

In the course of a communication to a late issue of the Lancet upon Adonidin in the Treatment of Heart Disease, Dr. Thomas Oliver gives a history of six cases in which this remedy was used with marked success, and, according to his observations, the value of the drug depends largely upon the character of the lesion. Where it is desired to bring only the heart under the influence of the medicament, as in the case of mitral and aortic regurgitation, adonidin is par excellence, the remedy. The cases referred to were all of this character, and, in addition, some of them had been sufferers from rheumatism, but in all there was decided action and prompt improvement following the exhibition of the drug. No decided diuretic action was noticeable, although in nearly all of the cases the aggregate amount of urine passed within twenty-four hours materially increased over that which existed previous to its use. Dr. Oliver believes adonidin has a sedative action upon the heart similar to that of belladonna.—*Med. Register*, Feb. 23, 1889.

A NEW TREATMENT FOR ANEURYSM.—Dr. R. F. Weir, at the meeting of the N. Y. State Medical Society, reviewed a plan of treatment for aneurysms which he and Dr. Abbe had used, and their accounts of which had been misunderstood. Following the lead of an English surgeon—Barwell—they had introduced into the sac a quantity of closely coiled piano-wire, and had then passed through the wire a strong electric current, causing the whole contents of the sac to clot about the loops of the wire. Clotting would not take place about the wire without a current, and, on the other hand, electro-acupuncture with needles did not lead to a clotting of the whole contents of the sac. Small clots formed about the tips of the needles, which fell off when the needles were withdrawn. In one instance he had introduced a hundred and fifty feet of wire by mistake. It had curled up inside without producing any disturbance. His method was to use the finest wire obtainable, coil it on a small spool, and run it into the sac through a hypodermic needle. He had used a current from thirty Smee's cells, of over fifty milliamperes, and had continued it for fifteen to twenty minutes. In all cases marked relief of pain and pulsation had followed and continued for a considerable time, and the tumors had grown smaller. Coagulation could be experimentally produced in an egg in the same way. In a number of cases where this plan of treatment had been followed and marked relief obtained for a time, autopsies had shown a firm clot which, with the coils of wire, entirely filled the sac. In applying the current, in order to insure the discharge of the current within the sac, he coated the hypodermic needle with collodion.—*N. Y. Med. Jour.*, Feb. 16, 1889.

The Medical Age.

Vol. VII. DETROIT, MARCH 25, 1889. No. 6.

Original Articles.

NEW THERAPEUTIC INDICATIONS IN THE TREATMENT OF RENAL INSUFFICIENCY.

BY DUJARDIN BEAUMETZ.

CHRONIC NEPHRITIS, RENAL DEGENERATION, ARTERIO-SCLEROSIS OF THE KIDNEY.

During the last few years no little progress has been made in the knowledge of renal diseases, and therapeutics cannot but profit by the new acquisitions. The paramount rôle which was once ascribed to the presence of albumen in the urine in the pathogeny of these affections, has been by degrees lessening, and the facts have compelled us to assign a preponderant importance to the non-elimination by the altered kidney of the toxic principles of the economy; it is this renal insufficiency which demands to day the most attention in the treatment of the divers degenerations of the kidney.

If the presence of albumen in greater or less quantity enables us to appreciate the congestive state of the kidney and the acute inflammations of this organ, it is not so in the case of chronic degeneration; and while one patient may daily excrete three or four grammes of albumen in his urine without suffering serious harm, therefrom (and this may go on for a series of years), another shall experience symptoms of poisoning sufficiently grave to cause death, and there shall have been at the same time scarcely appreciable traces of albumen in the urine, and sometimes the albumen shall be entirely wanting.

The quantity of urine voided during the twenty four hours does not always suffice for a criterion of renal insufficiency, for if it is an important prognostic sign when the urine is scanty, this is not the case when the urine is abundant; and there are patients who pass as much as two or three quarts of urine a day, but are nevertheless victims of renal insufficiency, for their urine, of very low specific gravity, contains scarcely anything but water.

This retention of the extractive matters and of the toxines which the urine normally contains, manifests itself by a symptomatic aggregate which is very complex. I cannot here enter into all the details connected with these symptoms; there are however chemical forms which it is indispensable to know, apart from the eclampsia and comatose forms which are observed especially in cases of acute insufficiency.

This word *acute insufficiency* demands an explanation. Sometimes, in fact, the renal functions are suddenly suppressed, and this is what I call acute or rapid insufficiency. Sometimes, on the contrary, this insufficiency comes about slowly, and proportional to the gradual and invading march of the renal degenerations. This is the most ordinary form, to which we may give the name of chronic renal insufficiency.

In this latter form, we observe symptoms on which it is important to dwell; a very important group of symptoms is certainly that which pertains to perturbations of the respiratory functions. This uræmic dyspnœa, so often confounded with asthma, but distinguished therefrom by the irregularity of the dyspnœic attack and by their peculiar form, is found frequently in renal insufficiency.

Another form no less frequent is the dyspeptic form, with or without vomiting. Sometimes the cerebral symptoms predominate in the phenomena of poisoning. These cerebral manifestations are very variable; sometimes there is headache, sometimes slowness in idea tion, sometimes real hallucinatory or delirious phenomena, constituting a chronic delirium of a very variable nature.

But certainly one of the manifestations of renal insufficiency least known is that which pertains to the skin. The cutaneous disorders, in fact, are of two kinds: either we have an acute eruption very much like scarlet fever, and to which has been the name of *exfoliative dermatitis*, or there is a general pruritus without any rash, and which patients are apt to regard a form of itch. This symptom is so common that we may almost lay down the law, that in all old people, who, without being the subjects of cutaneous parasites, complain of general pruritus, we ought to examine the urine with great care, for we shall almost always find there the cause of this pruritus.

Renal insufficiency may be due to several causes; I shall not mention them all, but shall only indicate that cause which is the most common, namely arterio-sclerosis.

The alteration of the arterial capillary network, so frequent in the aged, in the gouty, the arthritic, and the alcoholic, produces, as one of its first manifestations, disturbances in the

renal functions, and the insufficiency of function keeps pace with the spread of the degenerative lesions in the malpighian bodies. At the same time that these disorders appear at the periphery, the heart itself is troubled in its functions, and we see produced almost simultaneously alterations of the myocardium and disturbances in the rhythm of the beatings of the heat; then it is that we note that reduplication of the sounds of the heart indicated with so much precision by PROF. POTAIN.

These principles being laid down, we may now take up the important part of our subject, namely the manner of combating the symptoms which result from this renal insufficiency. We have for the most part two great indications to meet: the elimination by portions of the kidney remaining healthy and by emunctories vicarious with the kidney, as the intestines and skin, of the toxic substances accumulated in the economy; in the second place, to reduce to their minimum these urinary toxines on which BOUCHARD and his pupils have furnished us data so valuable and so useful. Let us now see how these two principle indications may be fulfilled.

The first brings into use the diuretics, purgatives, and sudorifics; the second constitutes an important chapter of alimentary hygiene.

In cases of renal insufficiency determined by chronic nephritis, many physicians dread to employ diuretics, lest they should augment the renal congestion. If this fear is justified in cases of acute affections of the kidney, it is not so in the chronic alterations, and in particular in the sclerosis of the renal parenchyma, where diuretics give good results.

Be it understood that I am speaking here only of cardiac diuretics; the saline diuretics, such as nitre, can have only an injurious effect. As for the cardiac diuretics, all of them may be employed, and I believe that it is useful to vary them, for in affections which demand a very prolonged treatment, we often see the kidney no longer responding to the action of a diuretic which has been long employed, but taking on increase of function with another diuretic. We may, then, employ digitalis, sparteine, strophanthus, caffein, adonis or adonidine, and even convallaria.

Although digitalis remains always the most active medicament in these cases, especially when used under the form of maceration, we must, nevertheless, remember that it is often badly tolerated, and this results from the disordered state of the stomach n individuals affected with renal insufficiency. Here, I prefer to digitalis, strophanthus and spartein.

Although some have affirmed that strophanthus irritates the kidney, and may even cause a *strophantidian nephritis*, I consider it as an excellent diuretic, applicable to these cases of renal insufficiency. I thus demur altogether to the opinion expressed by my excellent confrère DR. ELOY, who, in his very remarkable article on strophanthus,* claimed that this medicine is rather injurious than useful in the treatment of renal insufficiency. Strophanthus has the great advantage that it may be administered for a long time, for its effects do not accumulate in the economy. The tincture has given me satisfactory results in many cases, in the dose of five drops morning and evening.

Sulphate of sparteine is also a good medicine in such cases, and I rank it immediately after strophanthus. The dose is 0.6 (one grain) twice a day.

Caffein presents the advantages of being susceptible of subcutaneous administration, and in certain circumstances, especially where there is nausea and vomiting, these subcutaneous injections render us good service. The following is a good formula for hypodermic use:

℞ Pure caffeine,
Benzoate of soda, ää 2 grammes.
Boiling water, 6 grammes.

M. Sig.—Inject one syringeful night and morning.

Lastly, there are times when I have seen the tincture of *Adonis vernalis* give me results that I have not been able to obtain either from strophanthus or sparteine.

As for convallaria, it occupies the lowest place in this group of medicaments, for its diuretic action is feeble, and when we wish to increase the dose it brings on disturbances of the stomach.

Purgatives are very efficacious remedies in renal insufficiency, and for my part I do not hesitate to affirm their superiority over diuretics. At any rate, both classes of remedies should be used; the intestines constitute a channel for elimination which is vicarious with the kidney, enabling us to remove the toxines from the economy. Hence in all patients affected with renal insufficiency, it is necessary to obtain two to three abundant liquid stools per day. To obtain this result, you will have to ring the changes on a variety of purgatives, from the most feeble to the most energetic, taking care to adapt them to the susceptibility of the patient. One patient, in fact, will obtain three or four stools by taking a glass of Rubinat water, while in another you will have to use powerful drastic purgatives, such as the German tincture of jalap.

I often make use of a laxative powder resembling the German compound licorice, which is ordinarily well tolerated, and of which the formula is as follows:

* In the Gazette Hebdomadaire.

℞ Pulv. sennæ,
Sulphur, ää 6.00 (ʒ jss).
Anise,
Fennel, ää 3.00 (gr. xlv).
Cream of tartar, 2.00 (ʒ ss).
Licorice, 8.00 (ʒ ij).
Sugar, 25.00 (ʒ vj ℈).

M. Rub together into a fine powder, and give at bed time a dessert spoonful in half a tumbler of water.

The skin is another channel of elimination for the urinary toxines, much less effectual, however, than the intestinal emunctory. Some have counselled vapor baths and the employment of pilocarpine, but these are means which fatigue and exhaust the patient, and you cannot continue them without danger. To combat that intense itching which I have mentioned before, and which annoys patients affected with urinary insufficiency, one of the best means is scrubbing the body with hot water and soft soap, followed by a brisk dry rubbing. I come now to the capital point of my subject, namely the second indication to meet, and which is to diminish as far as possible the production of urinary toxines; here we have to rely exclusively on hygienic measures.

The researches of BOUCHARD and his pupils, and in particular of CHARRION, have shown us that the greater part of these urinary toxines come from two sources: ptomaines introduced in the food or resulting from imperfect digestion and food decomposition, and from leucomaines incessantly furnished by the living cells of the organism.

To diminish the production of these toxines, we must, then, aim to reach these three causes comprised in the terms: alimentary ptomaïnes, the product of imperfect digestion, and lastly the leucomaïnes of the organism.

The consideration of the first of these indications leads us to ask what are the kinds of food which *contain* the least quantity of ptomaines or which *furnish* the least? Such foods are undoubtedly vegetable and starchy substances, If this be the case, there would seem to be an obligation to subject individuals suffering from renal insufficiency to a vegetable diet, to which we might add milk and eggs.

Milk is of all articles of diet that which furnishes the least quantity of ptomaines, and which is the most readily assimilated; hence the practice to-day universally adopted of restricting patients in Bright's disease to an almost exclusive milk diet. But, unfortunately, milk is not always well borne; patients get tired of it, and we are obliged to add the other elements of the vegetarian regimen. As for eggs, I believe that there has been much exaggerated statement respecting the influence of white of egg in nephritis, and it is sufficient that this albumen shall be coagulated by heat to keep it from filtering through the kidneys. As for the other agents of the vegetarian regimen, I prescribe them in the following manner: The patient will make use exclusively of eggs, starchy foods, green vegetables and fruits.

A. The eggs shall be thoroughly cooked (hard boiled eggs, scrambled eggs, omelets and custards).

B. The amylaceous substances shall include mashed potatoes, bean soup, pea soup, lentils, revalescière,* racahout,† milk poridge, dumplings, puddings, macaroni, panada, hulled wheat (boiled), and oat meal, barley and indian meal in any form.

C. The green vegetables are to be thoroughly cooked (boiled mashed carrots, turnips, green peas, cooked salad, spinach, green celery, artichokes and green beans).

D. Fruits should be in the form of stewed fruit, with the exception of strawberries and grapes.

The patient will drink milk with his meals, or, if the stomach will not bear it, he may use some light, white wine well diluted with some of the alkaline mineral waters. Strong wines should be prohibited, and all distilled liquors, such as whiskey and brandy.

As for animal food, I forbid almost all kinds of meat, and under this prohibition I would include fish as well as mollusks and crustaceans. These are articles of diet which are very prone to give rise to ptomaïnes.

There is but one reservation to make, and that pertains to pork, which under some circumstances I allow, for the reason that this kind of meat is either eaten very fresh, before ptomaines have formed, or after being salted or smoked, which equally prevents the production of the ptomaines of putrefaction.

I have always obtained excellent results from this regimen, on condition, of course, that it be rigorously carried out by the patient.

To oppose the production of the ptomaines of incomplete digestion, the main thing to be done is to promote a healthy condition of the digestive passages; and here dilatation of the stomach plays a very important rôle. I cannot here take up this subject of gastrectasis, which merits a special chapter; what I wish to impress upon you is that in cases of renal insufficiency there is every advantage in making use dietetically of those antifermentative substances which regulate the gastric and intestinal fermentations. I make much use of the two following formulæ:

* *Revalescière.* A mixture of lentel flour, corn meal, pea flour, barley flour, with one per cent. of common salt.

† *Racahout.* A mixture of jalep, cocoa, potato flour, sweet acorns, rice flour, sugar and vanilla.—TRANSLATOR.

℞ Salicylate of bismuth,
Magnesia,
Bicarbonate of soda, ää 10 grammes.

To be divided into thirty capsules; one capsule after each meal.

℞ Salicylate of bismuth,
Naphthol,
Magnesia, ää 10 grammes.

To be divided into thirty capsules; one capsule after each meal.

Lastly, as for the leucomaines produced by the organism, we must insist that patients suffering from renal insufficiency shall avoid overfatigue, and especially exhausting labor of all kinds, as the fact of the non-elimination by the kidney necessitates extreme prudence in all muscular or mental work.

Such are the main outlines of the therapeutics of renal insufficiency. Cases of insufficiency are becoming so frequent at the present day, and this condition plays so conspicuous a part in the pathology of cases which we have every day before our eyes, that it has seemed to me desirable to remind you of these therapeutic indications, and to urge their real importance, for you will often succeed in prolonging the lives of such patients for years if you can make them follow your directions, and I hope that it will be to your profit that I have brought these facts before you.

ALIMENTATION OF THE NEW BORN INFANT.*

BY BARTON COOKE HIRST.†

GENTLEMEN:—In pursuance with the design of our regular Monday morning lectures, we reach to-day the very important subject of alimentation of the new born infant. But first let me hastily review the process of milk manufacture, a subject over which I went in detail some little time ago. It is, as you know, analogous to the production of the spermatic particle or the matter from a sebaceous gland. It consists in the over-growth of the glandular element; the epithelial cells becoming greatly enlarged, undergoing fatty change and bursting, setting free the fat globules. These globules are held in the solution by the casein, the emulsifying agent.

By a glance at these illustrations of a microscopic section of a breast which is secreting milk you will readily observe the great overgrowth of the glandular element in proportion to the connective tissue as contrasted with this diagram which represents a non-secreting mammary gland, where the gland portion is small and the connective tissue comparatively abundant.

Milk secretion begins forty-eight hours after the birth of the infant; before this there could probably be squeezed from the breast a thin watery secretion called colostrum, which differs from milk in containing less fat and more proteids, for the method of production has not yet grown active enough to burst the cells and set free the globules. To the swollen cells filled with fat, which can be detected in the fluid by the microscope we give the name "colostrum corpuscles." The purpose and composition of this colostrum we pointed out at a previous lecture.

Macroscopically human milk is not as white nor as opaque as cow's milk. It is said to be sweeter and to have a curious disagreeable taste. It is alkaline in reaction, while cow's milk is acid. I have here a cylinder containing mother's milk in which I have placed red litmus paper which is gradually turning blue while in the adjoining glass is cow's milk where a piece of blue litmus is slowly turning red. You will find it set down in the books that the specific gravity of human milk is 1029. In all the cases where I have tested this point I have found it greater; in this one here where I have placed a lactometer it stands at 1033 or 1034. However, I have not made an extended enough inquiry into this subject to warrant any conclusions; it requires long continued series of calculations and probably should I attempt the task I would find that my figures agreed more closely with the standard commonly accepted.

One curious chemical property which human milk possesses, known for some time, but again clearly demonstrated by a recent graduate of this University, is the power to a limited degree of converting starch into sugar. What use this amylolytic property may be put to in the infant's economy has not been fully determined but it is at least an interesting fact from a physiological point of view.

I present some tables which give the chemical composition of human milk, cow's milk and cream, which we will find it necessary to refer to when we come to study the subject of providing a perfect substitute for human milk. The tables are from a little book by DR. MEIG and I look upon them as the closest approximation to the exact proportions which we have:

	HUMAN MILK.	COW'S MILK.	CREAM
Water	87.163	87.012	79.15
Fat	4.288	4.209	13.30
Casein	1.045	3.252	2.91
Sugar	7.407	5.000	4.14
Ash	.101	.527	.48

The main factor in the estimation of milk is the amount of fat present. But let us first notice the enormous proportion of water in a three analyses and the varying proportions

* A lecture reported by J. HOWE ADAMS.

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the other constituents which we will examine into more closely later. The ash is simply the representation of the salts which are present.

There are a number of other constituents in milk but these are all which it is necessary for us as practical physicians to study. As to the estimation of quantity of fat, it may be determined chemically or microscopically; first chemically:

Take 10 c.c. of milk and add 20 c.c. of water to it, then 20 c.c. of ether, agitate them, then add 20 c.c. of absolute alcohol and agitate for five minutes. Let the mixture stand for a few hours. The fat dissolved in the ether will rise to the top, the casein and other products will sink to the bottom; the fat can be then removed and estimated.

Microscopically, a German investigator suggests counting the fat globules precisely as is done now in case of the human blood, using the same apparatus, the hæmocytometer, which is necessary in counting the red blood corpuscles. This observer makes 800,000 fat globules to the cubic millimeter as the normal number in good milk. There is yet not sufficient proof of the accuracy of this ingenious suggestion to recommend its adoption. Careful housewives are in the habit of judging of the quality of milk by the color which it presents, and to a certain extent this method can be relied upon. But in judging human milk itis of no use whatever. The color runs from a shade of diluted blue to a pronounced yellow. There may be in both extremes the same quantity of fat.

The nutritive properties depend on the albuminous principle—casein—which is present. The determination of the quantity of casein is a most delicate chemical operation which requires long practice and experience to perform accurately. Recent chemical discoveries show that the casein of the older chemists is not a definite body; or rather that there are present two other albuminous bodies besides casein which differ materially in being non-coagulable. The difference between the casein of human and cow's milk is supposed to explain the indigestibility of the latter form, but this difference has never been satisfactorily made out.

The sugar resembles grape rather than cane sugar, being the form called lactore, but falling in sweetening powers below these other two forms.

Now as to the ingestion of this nutritive material. As in all Nature's phenomena, every thing is adjusted here to the greatest advantage of the child. There are, as you have been told, about twenty lobes with twenty lactiferous ducts entering the nipple. These throw a stream of twenty delicate sprays into the infant's mouth. This is done without contact with the external atmosphere, not that the presence of air in itself changes the character of the milk, but it would permit the entrance of pathogenic particles which might interfere with its proper assimilation. Again, the milk is kept at an even, constant temperature, just sufficient to be most acceptable to the infant's stomach.

The manner in which digestion takes place has not been clearly made out. There are certain micro-organisms which play important roles in the health and diseases of the alimentary tract, especially in children. The first inspirations of the infant carry air into the œsophagus and stomach and with it several varieties of microbes. One kind is found invariably in the large intestine; the habitat of another is the small intestine. The relation of these bacteria to infantile digestion is being actively worked upon, but as yet has not been demonstrated fully.

The quantity of milk supplied by normal breasts would be a guide to the normal quantity required by a healthy baby, but unfortunately this is difficult to decide. The best method of determining the quantity is to draw the milk with the breast pump at regular intervals during the 24 hours, but the breast pump does not excite the maternal emotion, hence it draws always a less quantity; for the breast you know is an erectile organ in some degree, and even the sight of the child may be sufficient to produce a flow of milk.

Allowing for these errors we find at the end of the seventh day 14 ounces in twenty-four hours. The five preceding days the quantity is small and variable. By the end of the fourth week it amounts to two pints. By the end of the seventh week, three pints, that is, from both breasts.

Another method of deciding the quantity ingested is to weigh the child before and after nursing. A gain of three to six ounces would be noted. These points will be valuable guides as to the quantity required in artificial feeding.

Remember that the mammary secretion is influenced by certain factors; the quality can be altered by diet; for example, with too little albumen and too little fat there will be a diminution, not in the casein, but in the fat of of the milk.

If your patient overeats, if she uses large quantities of meat, liquors or milk, her milk will be overcowded with fat and become indigestible. The proper diet does not differ much from the ordinary diet of an average healthy adult, with this exception. Advise your patient to drink at 11 A. M. and 4 P. M., that is between meals a half pint of milk. If given at mealtime she is overfed. There must be great drain upon the whole organism to supply three pints of milk a day, but nature in some way provides for this, and it is unnecessary to stuff a woman with nutritious food. It is common to order a half pint of malt liquor with the

dinner—this is good advice to some, but watch the effects carefully. It may produce indigestion in the child. I remember a case to which I was called to treat a child that was greatly weakened from inability to keep food on its stomach; I found the mother was taking beer regularly, I stopped it and the child soon recovered.

If the beers are pure they may do no harm of this sort, but American beers generally contain many impurities, such as salicylic acid.

It is asserted in certain text-books that some vegetables, notably beets, have the power of increasing milk production. This assertion, as far as I know, is unsupported by clinical or chemical experiments, and I doubt it.

There is a wide-spread notion among the laity, which you must combat, in regard to cow's milk. Many nurses think that this fluid on entering the stomach goes directly to the breasts and nourishes the child. In consequence lookout that your patient is not overfed with milk through such a mistaken idea. Again, watch that the nurse does not control to too great an extent the regular diet of the nursing woman. For example, I was asked some time ago by a patient if she could have coffee occasionally. Somewhat surprised, I said "of course." She told me then that the nurse had forbidden it because, she said, it would kill the child.

There are conditions which interfere with the woman nursing her own child. First, she may not have enough milk. It is a notorious fact that a large proportion of Bavarian women cannot nurse their own children, but this inability to perform a mother's duty is by no means confined to Bavaria. Atrophy of the gland and overgrowth of connective tissue occurs from the habit of corset-wearing and a refusal to nurse their children, especially if the custom has obtained through several generations.

There are a number of diseases which, while they do not abrogate the function of lactation, render the milk unfit or for nutrition positively dangerous. Such diseases are the exanthemata or the other contagious and febrile or wasting diseases of adult life.

In phthisis, which is growing very common in this country, the quantity of milk is not often affected, in fact there may be galactorrhea, but the quality is influenced; the casein and fat are diminished. There is danger also of the passage of the tubercle bacillus. Of syphilis I have already spoken at length.

Again, nature is only ready to sustain one source of drain from the system, so that should there be much bleeding from the uterus, or a too early return of menses or metrorrhagia from retained decidua there is established a too great demand on the woman's system.

It is a curious fact, and one which is not well understood or explained, that the emotions produce such powerful effects on the milk of nursing women. Fright, anger, grief, all play important rôles in their influence upon the nursing function.

I saw a case where the sister of the nursing woman died very suddenly under distressing circumstances. She had been cared for by the mother of the baby and the death produced a distressing effect on the mother's mind. The baby on the following day became violently ill; but it was removed from the breast for forty-eight hours and immediately regained its health. At the expiration of that period the burst of grief had subsided and the nursing was successfully resumed.

I offer an explanation of this phenomenon based upon the recent physiological discovery of ptomaines and leucomaines, and the rôle they play. Probably some poisonous leucomaine is developed in the woman's system which is eliminated through the breast and threatens seriously the child's life.

The practical question arises, in case the mother is unable to supply the nourishment—how should the infant be fed? And the simple and natural answer would be, of course, by some other woman's breast. Right here let me illustrate a practical point which will be of service in hospital examinations, for this is a legitimate question and one often asked. It is an incident which occurred in my quiz class of last year. I asked a student this self same question and the reply was made—"by the rectum." This shows a tendency in many students' minds. Instead of thinking of the most natural and easiest way out of such a dilemma, to endeavor to devise some extraordinary and novel means for the solution of a simple problem. By this method of wet-nursing the mortality among the foundlings at Blockley has been reduced from 100 per cent. to 70 per cent.

But wet-nurses are not always as easily procured in this country as they are abroad. In a large city I would advise this method of obtaining a good one—advertise in the papers if you have the time and require them to apply at your office. Usually not more than five or six will respond and your time will not be unduly encroached upon. Select two or three of the most suitable and send them to your patient to whom should be left the final decision. The requisites for a good nurse are first a good quality of milk, proper age of the woman, approximately close period of lactation, a well-shaped nipple and if possible an equitable disposition as far as you can judge, and general agreeable qualities which will make her presence in the household at least not objectionable. Judgement of many of these points can be made by inspecting her own child which you

should mention her bringing with her when she visits you.

One point you should most carefully and critically enquire into and that is the possible existence of a syphilitic taint. I remember a distressing incident which occurred shortly after my graduation when I was resident in a hospital. A physician came to the hospital and without consulting either chief or resident picked out a comely young woman whom he sent as wet-nurse to the family of a patient. It so happened that the woman had the initial lesion on her genitals and the results were peculiarly distressing. The family were well connected and such an unhappy accident proved subsequently most unfortunate.

In cases of emergency where no time can be lost, take a cab and go from hospital to hospital as I have done until you find a suitable person.

But, gentlemen, it may be impossible for you to obtain a good wet-nurse—what then should you do? Naturally the next step would be to substitute for the mother's milk some artificial food and here arises the practical import of the analyses which I have had placed on the blackboard before you. For logically you should endeavor to imitate as closely as may be the food, which nature prepares for the infant's assimilation. Here the best substitute is cow's milk. It is true that the milk of other animals —notably of asses—agrees more closely to the composition of human milk, but these milks are difficult to obtain.

Let us therefore compare the differences between the milk of the woman and of the cow. We see at a glance that the casein and the sugar are the constituents which differ most widely, the casein being three times as great in amount while the sugar is not in quite as large a percentage. Another important constituent which we must study has but lately been thoroughly understood and appreciated. It is the non-coagulable albuminoids found in human and cow's milk. According to careful analyses the total amount of albuminoids in human milk is 2 per cent., while in cow's milk it runs up to 3.42 per cent. On the other hand the quantity of coagulable albuminoids in mother's milk is only .66 of one per cent. while cow's milk shows the enormous amount of 2.72 per cent.

The striking difference between the amounts of these constituents in mother's milk and cow's milk afford us in some part good reason for the effect that cow's milk has upon the alimentary tract of the new born.

Give pure cow's milk to a young infant and soon there will appear signs of intestinal disorder. There will be diarrhœa, a drain on the infant's strength, the child will grow thinner and in many cases will die. This might seem curious to a superficial observer, but a glance at the analyses, at the difference between the amounts of coagulable material in the two milks throws some light on the probable cause. After taking cow's milk the infant has to deal with a vast amount of coagulable substance; a mass which firmly clots in the stomach, breaks down the force of the peptic glands and is driven almost unchanged into the intestinal tract. From here, unbroken, undissolved it is discharged from the body almost unaltered. To obviate this difficulty, of course we must reduce the proportion of coagulable matter down to the limits which will suit the infant's strength of digestion. This is obtained by proper dilution of the milk. Let us return to the analyses of DR. MEIGS and the formula for the preparation of the artificial food which he deduced from his chemical investigations, observing at the proper time the necessary provision for the non-coagulable albuminoids which we now recognize in all milks.

DR. MEIGS found that by the following formula he could get a mixture which closely approximated human milk in its analysis. He mixed a tablespoonful of milk, two tablespoonfuls of cream, two tablespoonfuls of lime-water and three tablespoonfuls of a solution of sugar of milk. This solution was prepared by dissolving 17¾ drachms of sugar of milk in a pint of water. The chemical analysis of this preparation DR. MEIGS found to be as follows:

Water	87.639 per cent.
Fat	4.765 "
Casein	1.115 "
Sugar	6.264 "
Ash	.217 "

The only fault, as I have said, in this formula is that no provision was made for the non-coagulable albumenoids present in human milk. In this latter, containing less than one per cent. of coagulable material there is shown one per cent. and a half of non coagulable albumenoids; in cow's milk there is not only more coagulable material, but less non coagulable, hence in nutritive powers compared to mother's milk, cow's milk is deficient.

We will study the means to increase the nutritive powers in a few moments, but first let us study this preparation of DR. MEIGS. If we administer to children this food we will find that the majority of them will thrive, but in some, especially in summer, we will find the same diarrhœa, the same tendency to exhaustion and inanition as if cow's milk were given alone. The explanation of this fact has been lately furnished us by bacteriologists. No culture medium offers more favorable soil to bacteria than does milk. The pus-producing particles, the microbes of erysipelas, of diphtheria, scarlet fever, etc., find milk a favorable feeding ground. If this culture is administered to infants, in the vast majority of cases it will

produce intestinal irritation. Hardy adult stomachs have the power to destroy these organisms, but in the delicate mucous membranes of babies the bacteria attack the cells and diminish their digestive powers or else excite inflammation and bring on irritative diarrhœas.

Dr. Vaughan, of Michigan, and other workers in the same field, throw new light on this subject. You probably recollect the case of poisoning at Long Branch a few summers past. A curious illness broke out in a hotel at that resort and although I believe no one died, yet many were alarmingly ill. The case was carefully investigated, the cooking utensils were examined, the servants closely questioned and finally the disease was traced back to the milk. It seems that this was brought a long distance along a hot Jersey road at mid-day when the temperature was close to 100°. All the conditions offered a famous chance for the development of micro-organisms and the manufacture of their products—ptomaines, which were the poisons responsible for the outbreak of the disease. It is obvious, therefore, that we must obtain non-infected milk, if we wish a satisfactory substitute for the mother's breast.

How could milk be sterilized and yet remain sufficiently unchanged to be used as food for the infant, was a difficult question which has lately, however, been answered. It was a much more difficult task than would be supposed at first glance. It has been worked out by Dr. Jeffries, of Boston, Soxhlet, of Germany, and others.

Of course if milk be boiled it would be thoroughly and efficiently sterilized, but boiling renders the milk less digestible; it is apt to disagree with the child and create indigestion. Again bacteriologists have come to our rescue. They have shown that steam is a valuable sterilizer; that left to its influence for fifteen or twenty minutes milk is not changed as by boiling, that it is not rendered less digestible or nutritious, and that it is efficiently sterilized.

It is requisite, of course, that this sterilization will not be left too late. It will not do to deliver milk in the morning and sterilize it at night; by that time ptomaines have developed which are just as disastrous in their effects as the bacteria. Therefore sterilize the milk while it is still fresh. The great difficulty in general practice is that the advocates of this theory have produced too complicated and expensive apparatus for ordinary use. The arrangements have been pretty much the same as those required in a bacteriologist's laboratory. Realizing the necessity for some simple and inexpensive appliance which could be watched by any cook, I have devised an apparatus lately which will answer I think all requirements. I bought an egg boiler, with twelve spaces marked off on it, and a good sized tin bucket. A tin rod across the bucket serves to hold the egg boiler suspended in the interior of the pail. I fill the bucket with water to within a half inch of the bottom of the egg-boiler, making a layer of water about three to four inches deep. I obtained a dozen two-ounce bottles which I fill with milk and place in the rack suspended in the bucket. I placed this apparatus on the stove for twenty minutes and sterilization is complete.

The total cost of the sterilizer is $1.35. The process could be superintended by any cook. If you adopt this method, you will in great part banish the summer diarrhœa of children from your practice.

Of babies born in Philadelphia about one fifth die within the first year. The vast majority of these die from the results of using infected milk. Where this plan of administering non-infected food has been adopted it has met with the most gratifying success. At Red Bank, a sanitarium near Philadelphia, diarrhœa was almost done away with last summer. In the foundling hospitals of Europe the same results have been attained. In the dispensary service of Dr. Jeffries cases of infantile diarrhœa were most successfully avoided.

While this means is capable of excellent results they can only be obtained if the whole process of food preparation is conducted in a thorough and scientific manner. First it will not do to have dirty bottles. Do not subject the method to too great a test by such a procedure. Early in the morning when the milk is delivered, place the bottles, which should be stoppered with cotton wool, in a hot oven, until the cotton turns brown. Remove then the bottles and fill with the milk as prepared by Meig's formula, *i. e.*, one ounce of cream, one-half ounce of milk. Place the bottle then in the steamer for twenty minutes. The reason why one dozen bottles are used is that that is about the number of times the child is to be fed in a day. If you used a pint bottle it would be uncorked a dozen times and subjected to twelve chances of infection. By using a dozen little bottles we have the advantage of using the bottle but once, emptied at once and re-cleaned and sterilized again next morning.

But the milk is not the only ingredient liable to be spoiled. The sugar and lime water are also prone to undergo change. This form of sugar is peculiarly exposed to lactic acid fermentation. This can be avoided by using boiling water for the solution of the sugar, then putting it in the refrigerator; never making more than a pint and that for one day's use—thrown out if not used, the vessel scalded and the solution remade. To secure the cleanliness of the limewater direct your apothecary to make it with distilled water, although I believe this is usually their custom. But be sure that such is the case.

These are the theoretical reasons for this method of food preparation, now let me practically demonstrate the preparation of a baby's meal; stopping a moment to explain how the deficiency of albumenoids in DR. MEIGS' formula may be corrected. This is the routine practice: Our implements are a lamp, which should give an alcohol flame, and a small pot; three teaspoonfuls of sugar solution and two of lime-water are put in the little skillet over the flame until they are quite hot, but *not* boiling. When the mixture feels uncomfortable to the finger, blow out the flame, add a teaspoonful of Mellin's food, which comes under LIEBIG'S classification of foods, being a partly digested and digesting material containing enough albuminous material to raise by two per cent. the proportion of nitrogenous matter in the whole mixture. This solves the problem of the non coagulable albumenoids making the preparation quite equal to mother's milk. Take, then, a two-ounce bottle, empty into it the solution and use at once in the nursing-bottle. Any nurse after a few instructions can be drilled to make this a routine practice.

Careful attention must be paid to the nursing bottle, for if it be dirty all the precautions to obtain non-infected food are defeated. The bottle must be absolutely clean. For this purpose wash out with scalding water after each nursing and submerge in cold water between the feedings; same way with the nipple. The best nursing-bottles are graduated on the side so that the exact amount consumed can be ascertained at each feeding, for each child is a law to itself and requires a little different quantity. Watch the amount which will just stop short of producing regurgitation and keep close to that point, increasing it, however, from time to time. The bottle, moreover, is convenient in shape and size.

Nipples should be of this form: Short, never with a long tube, for a tube is impossible to keep clean. Look at the perforations, see that they are not too large or too small, nor single. They should be double to imitate nature. If too large they squirt a stream which may choke the child; if too small, the buccal muscles cannot afford sufficient suction. In time the openings stretch and become too large, hence, tell the mother to keep a number on hand and change whenever necessary.

There are a vast number of artificial foods for infants which are recommended strongly by the firms which manufacture them. The very number shows that no one satisfies fully the requirements. Mellin's food is, on the whole, I think the best of its class, used in the way which I have directed and never by itself.

The artificial foods for babies fall under three heads; milk foods, Liebig foods and farinaceous foods.

Milk foods are either dried milk which has been exhausted by a vacuum or condensed milk in which part of the water has been removed, or they are prepared by a fermentative process, the agent being carbolic acid—as in Konmyss. Another recent addition to this list is matzoon. Many of these milk foods are unreliable and unsatisfactory, being inferior in nutritive properties and sometimes indigestible. Apparently this is not true of condensed milk, for infants fed upon this article seem to thrive. There will be probably no diarrhœa and the child may fatten rapidly. But this is due to the presence of cane sugar in the condensed milk, and within a year, ten chances to one, the child will begin to show signs of rachitis. This statement is true of all of these milks in varying degrees; their only place is to tide over crises, to allow the child to recover tone.

Liebig foods are as I have said partly digested foods which should only be used as I have indicated in speaking of Mellin's food.

Farinaceous foods I have placed in an inconspicuous place because they should never be used before the fourth month. The salivary glands and pancreas before this period are incapable of grappling successfully with starchy food.

A REPORT OF FIFTY-FOUR CASES OF CHOREA.*

BY J. ELLIOTT COLBURN, M. D.†

Mr. President and Members:—The following is a report of cases of chorea which have been selected from my case books, extending over a period of eight years, ending January, 1889. But I shall give three or four of the typical cases in full, and have tabulated the remainder with special reference to their cause attributed and real, and the treatment instituted in each case and the result of my analysis, and such other statistical matter as may be deemed of importance in this connection:

1889. CASE 10.—Mary A., aged 14 years; tall, well built, having active general chorea following measles at nine years of age, or five years ago. She has been better at times; she is now able to feed herself the greater part of the time; walks but very little; has attempted to attend school a number of times, but her mother says "the mimicing of the other students made her quite bad," and she had to take her out of school each time. She was much better when allowed to go about the farm and did not attempt to do any work about the house. One year ago, May, 1878, she was much better than at any time previous, and the mother placed her in a private school for three weeks. The chorea returned with un-

* Read before the Chicago Medical Society.

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usual force and she was removed from the school. She soon improved by treatment, when she was able to again resume her school work, with similar result. This relapsing transpired three times, when a *blepharitis marginalis* was developed and the patient came under my care for treatment. The blepharitis soon yielded to treatment. Examination of vision gave V. = $\frac{20}{30}$, slight vertical astigmatism equal to a manifest + 25 cy axis 180°. Atropine was used, and vision R. E. $\frac{20}{25}$, L. E. $\frac{20}{100}$. Muscular condition, Vd. = Ms. Ext. rect. 5°. Under atropine there was a marked convergence, which was promptly relieved by a tenotomy and correction, giving R. E. + 1.25 D. + .25 cy., axis 180°; L. E. + 2. D. + .25 D. cy., axis 180°. Eight weeks later the patient returned; the only choreic movements were confined to a slight spasmodic pronation of the left hand. She was able to read, attend school and do work about the house. From a petulant nervous child she had become quiet, tractable and fond of her books. She had never had any eye symptoms nor had she complained of headaches until just before I was consulted. I am informed by a letter from the patient herself, now a teacher, that there has been no return of the trouble, and that she has continued the use of the correcting glasses as first given.

CASE 14.—Willie B., aged 10 years; general slight and marked facial chorea, two years duration following scarlatina. Had been treated almost constantly for the trouble. Previous to consulting me he had been examined by an oculist and an error of refraction found but considered so slight that no correction was given. Muscular condition normal. R. V.=$\frac{20}{60}$. L. V.=$\frac{20}{80}$. Astigmatism oblique. Correction R. E.+75 D. cy., axis 70°. L. E.+ 1. D., cy., axis 120°. A month subsequent to the adjustment of glasses the chorea had disappeared, the child was enabled to do much better school work and his teacher remarked that he was able to draw and write much better than before his treatment. *Mother astigmatic.*

CASE 38.—Cora C. aged 19 years. A stout, well built young woman with no apparent nervous tendencies. Following a typhoid fever at the age of 12 years she developed a chorea which has been quite marked at times and again almost entirely disappeared. She has been under almost constant treatment. Family history: *mother astigmatic*, and one *own sister* and *three half sisters*, the children of the same mother. One younger sister had chorea following measles. The peculiarities in this case are that for four years past the patient has been unable to read, sew or do any close work without aggravating the facial symptoms. Examination of eyes revealed R. V.=$\frac{20}{80}$. L. V. =$\frac{20}{80}$. Atropine, V.=$\frac{20}{100}$, both eyes. Correction,+2.50 D. both eyes. Muscular condition, slight manifest insufficiency of the external recti muscles. Treated with prisms and exercise over a period of six months, with little or no improvement in the muscular insufficiency. At last tenotomy, when the slight remaining chorea which had been persistent, entirely disappeared January 1887, and to date she has been perfectly free from choreic movements.

John J., aged 19 years. At 9 years of age developed a marked facial chorea without any apparent cause, which has been attributed by various physicians to fright, worms, etc. The choreaic movements kept up until about his 15th year when his parents noticed that he was tilting his head forward and to the right side. Soon after this change in pose of the head the choreaic movements ceased, and from that time until date of consulting me he had had no symptoms of chorea. The photograghs which I have with me will give you an idea of his condition better than a description. An examination revealed insufficiency of the external rectus of the left eye. A tenotomy was made of the opposing internal rectus and a partial correction obtained. He then manifested an insufficiency of the externus of the right eye, and I was obliged to make a tenotomy of the opposing tendon, with the result as illustrated in the photographs. Examination of the refraction revealed a slight compound hypermetropic astigmatism, which was corrected. To this error of refraction I attributed the muscular derangement. The patient now has no difficulty in obtaining single binocular vision. His father has the same pose of head, is slightly astigmatic and has suffered all his life from nervous headaches.

I wish also to call your attention to a case of epilepsy minor. Carl J., aged 9 years. During the past three months his teachers and parents had noticed that while reading or writing or when his attention was fixed upon any near point, he would give a little cry and remain in a fixed position for a short time and then resume his work as though nothing had happened to interrupt it. This was becoming more and more frequent when he was taken from school. He also complained of not being able to see for a while following the attack. For this trouble he was brought to the dispensary for examination. Not having the necessary instruments at hand, I took him to my office and examined him there. The child had the peculiar habit of looking at an object from under his brows with the head turned to the side and bent strongly forward. Three or four times during my examination he had seizures; following each of these spells he could only read $\frac{20}{70}$, while just previous to the seizure his vision was $\frac{20}{20}$. Atropine revealed an error of refraction of $\frac{20}{200}$ each eye, and correction was given: R. E. + 4 D. + .50 cy. Axis 90°. L. E. + 4 D. + .50 cy. Axis 90°.

Muscular action, vertical displacement = 2°-3°. I made a tenotomy of the left internal rectus to relieve this muscular insufficiency. The patient has had no further trouble, so far as his parents and teacher could observe, and I was not annoyed by seizures after the installation of the atropine. His father, grandfather and one brother have compound hypermetropic astigmatism, the father of high degree. (See below.)

PEACOCK gives the following analysis of 94 cases coming under his own observation, with regard to causation:

	Cases
Causes not ascertainable	23
Fright	25
Excitement	8
Blows on the head	5
Exposure to hot weather	1
Prolonged lactation	2
Pregnancy	3
Suppression of catamenia	3
Scarlatina	2
Rheumatism	8 to 9
Worms	3

The following is a summary of the 54 cases collected by me during the past eight years. The classification is made as nearly as possible according to that adopted by PEACOCK, as given above:

	Cases
Classed as causes not ascertainable	15
Fright	7
Excitement	1
Pregnancy	1
Scarlatina, measles and typhoid fever	17
(Of these, two cases were due to ear reflexes.)	
Rheumatism	3
Suppression and disturbance of catamenia	10

I make the following notes in connection with my own classification:

Cases in which there was evident hereditary error of refraction	28
Doubtful cases	9
Not examined with reference to heredity	10
No trouble or error in parents or family	17
No error of refraction	15
Total number of cases with error of refraction	39
Total number of cases reported	54
Number of cases treated	34
Number of cases treated by tenotomy alone	4
Number of cases benefited and cured	26
Number of cases benefited by correction and tenotomy	17
Number of cases cured	23

Of the cases classed as "cause not ascertainable," 10 of the 15 had error of refraction or accommodation: 10 of these cases were treated; and 9 were cured. The one not benefited was of such low mental grade that the parents gave up in despair.

Of the 7 cases attributed to fright, I found in 5 muscular and refractive errors, and that the patients were not strong prior to the attack, also that there was hereditary error in all these cases. All of these cases were benefited. In my opinion the error was the predisposing, and the fright the exciting cause.

Of the 21 cases reported in which some form of disease had figured as a possible cause, 14 had error of refraction, and 9 of these cases were successfully treated.

Of the 10 cases classed as due to suppression and disturbance of the catamenia, 7 cases had error of refraction, and 5 were cured.

In considering the foregoing cases I would call attention to the important incidents in the history of these patients:

First, is the evident heredity of the ocular defect. So constant have I found this element of heredity in ametropia that I have confidently predicted myopia, hypermetropia or astigmatism, from an examination of the parent to which the child bore the strongest facial resemblance; have not unfrequently found them agreeing in amount and meridian.

Second, is that in five of the females the chorea was manifested soon after a protracted illness or some marked depressing influence.

Third, that in 16 of the cases school work was evidentaly a secondary cause of the first manifestation of the trouble, and a return to any work that required close application of the eyes would greatly increase the severity of the spasms. In none of these cases has there been a return of the trouble after the patient had used the proper correction long enough to become accustomed to the new condition, though they have been placed under the same influences that had at former times precipitated more or less severe spasm. In none of the cases have I been obliged to use additional treatment. The period of convalescence has varied from one to four months.

It might also be interesting to note that there had been few positive eye symptoms in the majority of the cases reviewed; that in only 15 cases did the patient complain of any ocular discomfort. In only two cases was I able to detect any spasmodic action of the recti muscles. In one case there was marked disturbance of the oblique muscles. In 17 cases there was preponderance of the internal recti, or insufficiency of the external recti. All of which were operated on and relieved. Only about 50 per cent. of my cases were what would be called of a nervous temperament either hereditary or acquired. The statistics to which I have had access have, it seems to me, but little value, for they treat of the exciting causes and predisposing cause without discrimination. A review of the statistics of various authors give nearly 33⅓ per cent. of the cases without any manifest cause; about 33⅓ per cent. to emotional causes; 15 per cent. to tabulated diseases, and the balance to miscellaneous disturbances. In about 50 per cent. of the cases there was a hereditary history of tendency to nervous troubles.

In all the cases which I report there had been frequent efforts to effect a cure, and for a time and under favorable conditions the symp-

toms would seem to be under control, but as soon as the remedy was withdrawn or old conditions resumed, the trouble would return with its former force; but after the cause of the reflex had been removed, as in the cases that were apparently due to error of refraction, the cure has been radical.

CLINICAL NOTES FROM PRIVATE PRACTICE.

PEPSIN IN THE TREATMENT OF ULCERS.

DR. MILTON F. COE, of Chicago, reports the following case of *chronic ulcer*, in which pepsin was of service: The whole tibial surface of the left leg was covered with gangrenous integument, and emitted considerable quantities of green pus.

Wishing to save all the integument possible on this surface where the soft parts were so shallow, I thought the curette contraindicated and resorted to the use of the per-oxide of hydrogen, even in full strength, with but little result. Then I covered the ulcerating surface with "Pepsinum Purum Pulvis," and left the leg in an antiseptic, hydroscopic dressing for twelve hours.

On redressing the wound, I found the gangrenous integument considerably digested, and on washing the surface, I found healthy granulations springing up where the true skin was not entirely destroyed by the ulcerating process. The character of the ulcer was changed so much that no more pepsin was used. The antiseptic dressings were replaced each day, and the case is making an excellent recovery.

I believe that a *pure* and *concentrated* pepsin can be of much service in this new field.

FLUID EXTRACT OF ADRUE TO CONTROL VOMITING.

M. C. L. KITCHEN, M. D., reports the following interesting facts about adrue in irritable tomach:

The patient, a lady, aged about 40, who has at several times been under my care for eight years; has an irritable stomach, and no matter what her other ailments may be, vomiting is sure to set in early in the case. I have on these occasions used every remedy that has been brought to my notice to try to quell the insurrection, and have always been forced to the use of morphine by hypodermic injections, and on one occasion she was fed per rectum for a week before the stomach would retain food.

In the Organic Materia Medica I read of adrue, and after this patient had been several days at her old habit of vomiting, and had by the frequent straining begun to bring up small quantities of blood, I determined to try adrue. I received a bottle on the 28th, and began giving it in 15 drop doses every two hours, with instructions to give it oftener if at any time on the attempt to take some nourishment there should be more vomiting. Soon after taking the first dose (which she said caused a pleasant sensation in the stomach), she began to partake of some oyster soup. Six days have now passed and she is constantly improving, and has not taken any of the adrue for the last two days. This is a case of a naturally irritable stomach not depending upon any one special cause, but accompanying every illness.

On the 3d inst., I prescribed adrue in the case of another lady who had persistent vomiting from uterine trouble and used it in the same dose and with the result that in eighteen hours she was able to retain food and medicines.

MALARIAL POISONING.

W. M. TIGNER, M. D., of Churdan, Iowa, reports the following case:

I was called Dec. 18, 1888, to see Jessie C., aged 14, who had been sick since April. Trouble began with a sense of "filling up" in the throat, coughing, and chills. The latter recurring daily for several weeks, then at intervals during the summer. On July 31, patient had what she called a "choking spell," said spell recurred at irregular intervals during the rest of the summer and fall. These consisted in a sense of "filling up" in the pharynx, aphonia, chilliness, followed by loss of consciousness and tonic spasm of all voluntary muscles. They were more frequent and severe during menstrual epochs which occurred regularly. A physician who was consulted early in May, diagnosed catarrhal pneumonia, and gave an unfavorable prognosis. Another physician was called who diagnosed phthisis pulmonalis. A third physician diagnosed tubercular meningitis, and gave "certain death" as his prognosis.

On the above named date, Dec. 18, I found the following symptoms: Temperature, 102° F.; pulse, 110, regular; respirations normal; tongue covered with a thick grey fur; breath offensive; skin dry and harsh; general hyperæsthesia; spleen enlarged and tender on percussion; anorexia and insomnia almost complete; kidneys and bowels sluggish. I diagnosed malarial poisoning and gave the following treatment: Fowler's solution, drops seven, three times a day after eating. Iod. potass., gr. xvi, at 10 A. M., 3 and 8 P. M.; gave mercurial purgative and chloral hydrate as hypnotic; gave instructions in regard to bathing and other hygienic measures. After continuing above treatment for two weeks, with marked improvement in patients condition, gave 8 grains quinine sulphate, three times a day until it had a decided effect. Then gave tincture ferri chloride, drops ten, after meals, keeping

the bowels acting by fluid extract cascara sagrada. I also gave quinia sulphate, gr. xii, every second day at bedtime.

At present writing, March 5, 1889, patient enjoys good health, not having had a "spell" for eight weeks, eating and sleeping well during all this time; has gained fifteen pounds in weight, still takes quinia sulphate, gr. xii, twice per week.

GLYCERIN SUPPOSITORIES IN PERITONITIS AND LABOR.

L. B. ANDERSON, M. D., reports his experience with this method of securing defecation as follows:

I was called to a case of puerperal peritonitis, which occurred on the night of the day on which delivery took place. I saw the patient in the morning, and found her with a violent attack of acute peritoneal inflammation and a very high fever; bowels constipated. As it would have been extremely unwise to excite the peristaltic action of the bowels in the midst of such inflammation and extreme sensibility, I bled her freely, administered opium and calomel, and applied to the abdomen hot poultices. The bleeding brought down the temperature and pulse, and there was no reaction. On the second day, after the reaction of the fever, and about the fifth of constipation, I had a glycerin suppository administered, and in a few hours she had a copious evacuation, without any griping or pain Its action was exceedingly gratifying in every respect. Her recovery was rapid.

A day or two after, I had another case of constipation, accompanying torpid liver and inactive kidneys, with constant nausea and fullness and pressure on the bowels. A glycerin suppository was administered, which acted in an hour, affording prompt relief.

These suppositories have been used by me with the most gratifying results; especially satisfactory was the action of one in a case of labor, three or four days ago, in which there was constipation and fecal accumulation unusually trying. As the labor was progressing there was no time to await the action of medicines *per orem*, and a suppository was given. In one hour it brought away a large mass of scybillæ, and a copious discharge, in addition, adding greatly to the comfort of the patient.

GLYCERIN SUPPOSITORIES.

DR. H. D. WILLIAMS, of Ottawa, Kansas, sends the following note of his experience with glycerin suppositories:

The patient, a lady of 30 to 35 years of age; medium size; spare and poorly nourished; sallow complexion; suffered from obstinate constipation of several years' standing, having only one or two evacuations per week; fæces very dry and hard and voided with much pain. Used one suppository; had two liquid evacuations first night, and one each day afterward for a week, when she sent for further instructions. I directed her to use half a suppository two or three times a week, as needed, and on visiting her subsequently, I found her doing very nicely indeed—half a suppository every three days being sufficient for her—in fact, she is very much pleased. Her complexion has changed for the better and her appetite has improved.

Correspondence.

HOW TO CHOOSE A DOCTOR.

We have read somewhere about "how to choose a wife." Somewhere else "how to buy a horse," and somewhere too "how to write a letter," or "make a garden," or "cure the rot in sheep,"—yes, we have read "how to get rich," and how to do everything under the sun, except how to choose a doctor. Since we can not find an article on how to choose a doctor, we will e'en write one. To be a doctor one must first be a man, and a mean man cannot be a good doctor any more than he can be a good minister or a good husband. And a really honest, large and loving man, cannot make a poor doctor, no matter what his pet pathy may be. To have good sense as a doctor one must have good sense as a man If your doctor lacks sense about other things, you may be sure that he does also about medicine and surgery. If the doctor's office be untidy you may be quite certain that he will come short of giving good counsel as to health and tidiness of body. If he be clumsy in hitching his horse, you may be sure that he is not handy at surgery or midwifery. If he be a great coarse, blundering fellow—careless of dress, farmer-looking man, you may be sure that he will lack perception of those finer symptoms by which a good doctor is guided. If he slanders brother physicians who profess a different pathy, you may be sure that he is himself a quack. Good, earnest doctors are too busy to find time to slander their brethren or their rivals. It is the same as with lawyers, ministers, and teachers. The truly good and truly great do not detract from the reputation of others, they are generous and magnanimous even to rivals. If your doctor flatters you and humors your lusts and appetites, and helps you out of a bad scrape secretly, without reproof, as if you had done no wrong, distrust him. If you can hire him to do or say what he would not do without the hire, beware of him. Good doctors cannot be bought. Your doctor ought not to be a single man. He ought to be a married man, and if you see that his wife respects him and his children obey him, that is

a very good sign that he may be trusted. If your doctor tells you how to keep well, that is a good sign. You come to him with toothache, and he gives you creasote and clove oil for the tooth and at the same time suggests that you do not wash enough to keep well—that is a good sign. If the children like him, that is a good sign. If you find him reading in his office that is a good sign, and especially if he is a settled, middle aged man. If he says, "I once thought so and so, but I was wrong, it is a good sign. If the doctor is neat and handy in rolling pills and folding powders, that is to his credit. If he understands how to bud roses, graft fruit trees, mix strawberry pollen for improved berries, cure chicken pip, tinker, a trunk lock, or put a clock in order, all these are so much to his credit. If, further, you love to meet him, the sight of him quickens you, and you are glad to hear him chat, and you know him thus to be a lovable, sympathetic man—he is the man for your doctor, your confidential friend—find him, trust him.

HERBERT C. HARRIS, M. D.,
TAYLOR'S DEPOT, MISS.

A PROLIFIC FAMILY.

At the solicitation of my friend, DR. BEN. T. WHITMORE, I have consented to report the following case, which taken in connection with the family history is in some respects quite remarkable.

On the evening of Feb. 20th, I was called to attend Mrs. S. D., in her seventh confinement. When I entered the room the nurse remarked "Doctor we are needing you very badly, one child is already born and I think there is another." I was just in time to conduct the delivery of the second child and without any cessation of pain I found the head of the third child presenting. From what I could learn from the nurse, and what occurred under my own observation, I think it could not have been more than 30 minutes from the time the head of the first child presented at the outlet until the delivery of the third child was completed. There were two placentæ. The first and second being attached by distinct cords to one, and the third child to the second placenta. The first and second were both girls, the third a boy. The first and third would probably have weighed three and a half pounds each and the second one, two and a half pounds. They were all perfect and fully developed and gave evidence of good lungs by lustily squalling. They are at this date, March 4, all alive and healthy. There has existed nothing unusual in the condition of the mother since the confinement, but she has been doing remarkably well.

I found on questioning her that she is now 34 years of age. That she has given birth to eleven children. That her first and second confinements consisted of a single child each time, that at her third and fourth confinements she gave birth each time to twins, that the fifth and sixth confinements were single children, and the seventh confinement consisted of triplets, making eleven children at seven confinements.

This was to me such an unusual case that at a later visit I was stimulated to enquire into the family history of my patient, and from her mother who was present I gathered the following interesting facts. The mother of Mrs. D., had given birth to fifteen children at fourteen confinements, there being one pair of twins. Her grandmother had eight children, but no twins. Her great grandmother, on her grandmother's side was herself one of a pair of twins. Her great grandmother on her grandfather's side had two pairs of twins.

Her brother's wife has had one pair of twins, and her own uncle's wife has had one pair of twins.

This is without exception the most prolific family that has fallen under my observation during my seventeen years of practice.

J. ROBT. BUCHANAN, M. D.
NEVADA, MO.

PHYSICIANS' FEES.

I read with interest DR. C. BARLOW'S remarks on doctors' fees, and agree with all he says; but the desired end can never be accomplished by the means suggested by the Doctor. First: Practice must be conducted on business principles. It is absolutely essential to the welfare of the practitioner that the power of granting diplomas be under the supervision of medical practitioners, and the number of medical institutions having this power be restricted and watched. Second: It is fatal to the interest of the medical practitioner to have his living curtailed by the abuse of medical dispensaries and free hospitals: Third: We need to be protected from the invasion of foreign doctors. By medical practitioner I mean one who earns his living exclusively by the practice of his profession. At present the professors of medical colleges, especially the two year ones, are interested in large classes, which mean big fees. In the large cities, with their superabundant and unneeded dispensaries, it is impossible to collect promptly and demand adequate fees, as many of those able to pay use the dispensaries to avoid paying. If we would unite, as suggested by DR. BARLOW, and form a protective society like the one mentioned in the MEDICAL AGE of February 10th at Brooklyn, every man would be assured of a good living, the profession would command the respect due it from the public, and would cease to be a butt of ridicule. We owe to our families the protection many of us are unable to afford, through no fault of us individually. The financial part of our profession needs the same careful consideration as the patient's interest.

DR. J. H. DEWOLF.
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The Medical Age.

A SEMI-MONTHLY REVIEW OF MEDICINE.

B. W. PALMER, A. M., M. D., Editor.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

DETROIT, MICH., MAR. 25, 1889.

Editorial.

THE PRACTICAL BEARING ON THE TREATMENT OF DIPHTHERIA OF SOME RECENT EXPERIMENTS.

A series of carefully conducted experiments by ROUX and YERSIN, recorded in the Annals de Pasteur, and referred to in the last number of the MEDICAL AGE (page 111), may be regarded as giving strong confirmation to the view, now becoming more and more prevalent, that the bacillus first discovered by KLEBS in 1873, and rediscovered and accurately described later by LŒFFLER in connection with diphtheritic membranes, is the specific agent in diphtheria. But attempts to reproduce the disease by inoculating the corpuscular products of a pure culture were not successful, and it was felt that science had not yet mastered the etiological problem. The discoveries of the last few years in the domain of the ptomaines and leucomaines seemed to promise new light amid the difficulties, and the theory was maintained that the real *materies morbi* of diphtheria was not a microbe, but a ptomaine, although the ptomaine might be the product of a microbe, possibly, of the Loeffler microbe.

It has for many years, moreover, been the prevalent view that diphtheria is not primarily a general, but a local disease, and that the constitutional infection takes place subsequently to the formation in the spot where the membranous patches first present themselves of a toxic principle (living agent or chemical poison), which, penetrating the blood, overwhelms and oppresses—with what disastrous results every physician well knows—the nervous system and the vital forces.

Such being the theory, there has been a strong disposition on the part of practitioners to attack the disease *in loco* and arrest it in its incipiency; this, in fact, to believers in the primarily local character of diphtheria, constitutes the leading indication. JACOBI, one of our leading authorities, advises to meet this indication as far as possible; the same may be said of BILLINGTON, SMITH, and LIEBERMEISTER. Within the past two years, two noted French therapeutists—LEGENDRE, in the Archives de Laryngologie, Oct., 1887, and GAUCHER, in the Bulletin de Therapeutique, Feb., 1888—have recommended, not merely the application o antiseptics, but a revival of the old-fashioned method of treating the diptheritic patches by energetic cauterizations and the forcible removal of the false membranes; "but you must not merely remove the false membranes," say these French authorities, "you must cauterize the subjacent mucosa;" and for this purpose the concentrated phenic acid is recommended.

The communications of these French writers did not produce much impression on the profession, although somewhat remarkable therapeutic results were claimed by them. It must be confessed, however, that the experiments of ROUX and YERSIN, and the conclusions to which they have arrived, give a powerful support to the theoretical views of LEGENDRE and GAUCHER.

In brief, ROUX and YERSIN claim to have proved that the infectious agent is a soluble ferment, a *toxine*, generated in the diseased part—the diphtheritic patch—by the microbe of LŒFFLER. By numerous experiments they have filtered out the corpuscular part of a diphtheritic new formation, using for this purpose a porcelain filter which retains the microbes. The liquid (soluble) portions pass through, and are received into veal broth. A little of this liquid, when inoculated in animals, produces diphtheria with all its local and general symptoms, including the consecutive paralyses. If you can, they say, by sufficiently active local applications, arrest the disease before the microbe has had time to "pullulate" and secrete its *toxine*, you prevent constitutional infection; they claim that experimentally they have witnessed this result in their diphtheritic animals. Another fact is recorded by them: The diphtheritic poison is much more likely to attack a diseased, abraded or wounded surface than one that is sound. Hence it is necessary that the physician shall use the utmost care, in making his swabbings and irrigations, not to wound or abrade the parts, while at the same time the local applications must be thorough enough to penetrate the diseased tissues and stop the multiplication of the microbes and the secretion of the toxic principle.

DR. JULES SIMON has recently published a course of lectures on the Therapeutics of Diphtheria, in which he applies the new pathogenic data to practice. The local treatment which he advises is very energetic, and comprises swabbings, irrigations, gargles and sprays.

The swabbing may be done by means of a stick or probang, around whose extremity a little absorbent cotton is wrapped, and the following is a preparation on which PROFESSOR SIMON places great reliance:

℞ Salicylic acid, 0.50 to 1.00
(7½ to 15 grains).
Alcohol, q. s. to dissolve.
Glycerin, 40.00 (1¼ ounces).
Infusion of eucalyptus, 60.00
(2 ounces).
M.

The throat is first cleansed of mucosities by the help of a dry swab, then the above preparation is thoroughly applied. It should be brushed several times over the patches, and any loose false membranes should be detached. The swabbing should be repeated every hour during the day, and three times during the night. DR. SIMON insists on the necessity of frequency in these swabbings.

When the false membranes are very thick and very adherent, he paints the patches from two to four times a day with his perchloride of iron mixture; this is made as follows:

℞ Perchloride of iron,
Glycerin, ää equal parts.

Every two hours, the swabbing is followed by an irrigation made with lime-water, or a one-per-cent. carbolic acid solution. There is some danger that phenic acid, if used too freely, may prove toxic to children. These irrigations should be given warm, and should include about a gobletful of the solution; for the purpose of administration, a fountain syringe whose delivery tube is provided with a stop-cock will do. It requires some tact to administer such irrigations to advantage, and they are impossible in children under three years.

Where the child is old enough to gargle, an antiseptic solution may be employed for this purpose. DR. SIMON places great importance on the use of the spray-producer or steam atomizer, and recommends for such local medication, tincture of eucalyptus—a tablespoonful to a large gobletful of water—carbolic acid—a one-per-cent. solution, etc.

As medicine, DR. SIMON relies much on the liquor ferri perchloridi, one drop every hour or two, in broth or in a little whisky punch. This medicament he continues for several days.

As for chlorate of potash, DR. SIMON does not now prescribe it, never having seen the least benefit from this remedy. Alcohol in the form of wine, brandy, champagne, and the most strengthening nutrients are indicated throughout the entire disease.

A BLANK IN MEDICAL LITERATURE.

Therapeutics is the science of applying medicine to the cure of disease; pharmacy is the science of preparing medicine, materia medica is the name of the collection of substances used in medicine. These three taken together constitute pharmacology or the science of drugs.

Now, while the medical journals are full of articles concerning drugs and their application, there is little to be found on the subject of preparing medicine. Yet the methods of preparing them influence or modify their therapeutic effect. For this reason physicians ought to be conversant with the various methods and menstrua employed in preparing the medicines they are called on to prescribe.

What has become of pharmaceutical literature? Owing to the fact that pharmacy is considered by medical editors in the light of a trade they look upon such literature as advertising matter and refuse to admit it to the journals. All that the journals usually contain relating to pharmacy may be found in the advertising department, and that is meagre. Then, too, manufacturers of medicine generally do not care to publish their true formulæ because it benefits competitors.

But pharmacy has as much right in medical journals as therapeutics, or any other branch of medical science. In fact it is a serious error that pharmacy is left out. Not only is it true as I have just said that the effects produced by medicines are modified by the modes of preparing them, but the science of medicine itself must eventually suffer in consequence. Suppose, for example, that all the knowledge of preparing medicine during the past had been secreted for trade purposes, as at present seems the rule, could we have had a pharmacopœia? It is a fact that we would find mention of medicinal preparations, knowledge of the preparation of which now would be among the lost arts. And this state of affairs will exist at some future time if the art of preparing many of the pharmaceuticals advertised in the medical journals, and extensively employed by the medical profession, is not published for the benefit of science.

But, I hear you say, do you expect medical journals will publish matter that advertises manufacturers and do it without pay? Yes, I do expect that very thing. I expect to see the time come when the united pharmaceutical profession of America will rise and demand it; and the medical profession will second the demand. But what if they refuse? Then pharmacists will publish medical journals to meet the demand of the medical profession for more light concerning pharmaceutical preparations.

I thoroughly agree with medical editors, however, in one thing, viz.: The journals are run for the benefit of the readers, and not for the benefit of manufacturers. But I make this exception: It is for the benefit of the readers that exact knowledge of every pharmaceutical preparation be published, and the benefit derived by the manufacturer by such publication is only a secondary one. The publication is

not intended to benefit the manufacturer, but to benefit the reader.

Of course I do not intend to advocate that journals shall publish information of this kind concerning proprietary articles. That would indeed be for the benefit of the manufacturer, with a vengeance; and the reader would not receive as much benefit as the manufacturer. There is a great difference between publishing information concerning preparations free to the use of all, and like information concerning preparations over which the manufacturer exercises exclusive control.

And would you receive such publications from the manufacturer and publish them in your journal? Certainly I would. Who knows more about the pharmacy of a preparation than the pharmacist?

But what would become of your advertising department if you admit such matter to the columns of your journal free of charge? It would not hurt it in the least. Look at the foreign medical journals. They receive articles from the manufacturers with delight, yet their advertising columns do not suffer in consequence.

The MEDICAL AGE in future will be glad to receive communications concerning the methods of preparing any pharmaceutical not of a proprietary nature, as well as articles concerning their therapeutic qualities. It will welcome such articles from the medical profession, but from pharmacists the articles will be doubly welcome, whether the writer is interested in the sale of the preparation or not. That makes no difference whatever. It is just as legitimate for a pharmacist to report concerning the manufacture of a medicinal preparation as it is for a physician to report a case that he has treated. Such publication in either case advertises the author, to be sure, but it is an exceedingly legitimate advertisement. It is only by publishing such knowledge that progress in medical science can be promoted; and it is the duty of every physician and pharmacist to make report of his experience for the benefit of science. To promote progress in the science of medicine and the several arts connected therewith is our aim, and we will receive articles written with that intent from any and all sources.—F. E. S.

THE TENSION OF MODERN LIFE—IS IT HARMFUL?

So much has been written about the effects of the pressure under which all modern work is done, and its mal-effects, the diseases it gives rise to, and its general demoralizing tendency, that it is a relief and pleasure to know that there is an optimistic view of the question possible.

This has recently been admirably presented by a foreign contemporary, in which it is pointed out that the stimulant effect and stress of modern methods of working are perhaps no more injurious than the apathy and dullness of other generations. We believe in that theory of life which acknowledges that growth and development come with use, and that the fullest employment of all faculties conduces to the most perfect ideal of human health, physical and intellectual, and are therefore in sympathy with the views we reproduce:

"The higher literature of the age is full of regrets at the growing tension of life, the accumulating pressure of existence, and the increasing difficulty of securing that minimum of leisure which is essential to healthy physical and intellectual well-being. By no one has this feeling been more happily expressed than by NATHANIEL HAWTHORNE, who in one of his great novels writes: 'It is the iron rule in our day to require an object and a purpose in life. It makes us all parts of a complicated scheme of progress, which can only result in our arrival at a colder and drearier region than we were born in. It insists upon everybody adding somewhat—a mite, perhaps, but earned by incessant effort—to an accumulated pile of usefulness, of which the only use will be to burden our posterity with even heavier thoughts and more inordinate labor than our own. No life now wanders like an unfettered stream; there is a mill wheel for the tiniest rivulet to turn. We go all wrong by too strenuous a resolution to go all right.' Is this over-pressure in thought and action a mere sentimental fancy, or a genuine evil? If real, what are its forms, and upon what classes does it press most heavily? Is it part of the necessary order of things in a state of advanced civilization, or does it admit of check or remedy?

Probably no candid observer can doubt that life in modern times is more vehement and strenuous, more taxing to mind and physique, than it was in ancient days. Steam, electricity, the facilities for travel, the spread of education, the growth of competition, all these and many other causes have co-operated to this end. Yet it would obviously be a great error to judge the life of the nation by the conditions which prevail in the great centers of industry, commerce and intellectual life. We have only to penetrate a little way into the rural districts to discover that the stream of progress which flows with so mighty and rapid a flood in the metropolitan centres, there lags behind and creeps along with almost the tranquillity and calm of the olden time. There are numerous localities not many miles from the great trunk lines of railway where the conditions of life have undergone little change in the last two hundred years, and where the impact of modern civilization has been but slightly felt against the bulwarks of immemorial usage and ancient preju-

dice. But the general rule has certainly been one of rapid progress and growing tension of life. It must not, however, be too confidently assumed that this tendency is wholly or even mainly evil. Each age realizes more or less clearly its own peculiar dangers, and is very apt to ignore the evils from which its mistakes are frequently a reaction. We hear and speak much now of the evils of over-pressure, the dangers of undue excitement. We forget that mental stagnation is also evil, that intellectual inanition may carry in its train consequences even more prejudicial than over stimulation, and that the due exercise of the faculties is as essential to their strength and activity as rest. Probably one reason why women as a class are more subject than men to the minor ailments—to neuralgias, dyspepsias and debilities—is that their life, at least among the wealthier classes, is so frequently deficient in variety, activity, and continuous occupation. Dullness is a foe as well as over-excitement—idleness may be as evil physically and intellectually as over-work, and is undoubtedly more dangerous from the moral point of view. While, then, we think modern life is somewhat too anxious and over-strained, we must admit that it is largely free from the mischief which springs from intellectual torpor. The judicious application of the brake may be desirable, but we must not fancy that there would be any wisdom in attempting to stop the coach of modern progress, even if such an attempt were not obviously foredoomed to failure. Half a century ago men found it difficult to imagine that they should ever be able to travel forty or fifty miles an hour without physical hurt. Now we smile at such fears, and in a wider sense we may perhaps in time get so accustomed to the accelerated velocity of modern progress that we shall cease to remark or dread its speed.

The lack of leisure, which is nevertheless very real, makes itself felt largely among the commercial classes, but perhaps most of all among the professions, literary workers, and those engaged in legislation. The hard-worked lawyer or medical man, the over-taxed leader-writer, and the active politician, represent the classes who will most heartily re-echo the lament of HAWTHORNE. Is there any remedy for this state of things? Certainly not in any radical or organic change in the order of life. Such a change can never be accomplished suddenly, and we may doubt if it will ever be accomplished at all, at least within a measurable period. We must adapt ourselves to circumstances rather than fancy that we can, to any considerable degree, mould circumstances to suit us. One of the best lessons to be learnt is the absolute necessity of preventing work from degenerating into worry. It is worry that kills for the most part, not work. To learn to put forth our best powers steadily, continuously, in the proper grooves, to the proper ends, "without haste and without rest," this is one of the most precious fruits of wisdom and experience. Another valuable rule must be to seize the moments for leisure which present themselves during the intervals of work. The heart rests between the beats; why should not the busiest and most anxious among us also enjoy some relaxation even amidst the rounds of the most imperious duties?"

THE NEGLECT OF CLINICAL TEACHING.

There was a time when clinical teaching in this country was not practicable and when the wards of the hospitals of Europe were supposed to be necessary to the perfecting of the knowledge gained by American students from didactic instruction. This time, however, has long gone by, and we doubt if there is greater opportunity for clinical instruction abroad at the present time than in this country though we might perhaps except Vienna.

It is not the lack of material or the lack of opportunity for its use in this country that limits clinical teaching but rather the neglect of the means at command.

The Journal of the American Medical Association, March 9, 1889, in discussing this subject pertinently says:

> Not one of the Medical Practice Acts in force in the United States distinctly prescribes clinical teaching. The only rule of any board of health or examiners in the United States that bears on this subject is Section V of the "Schedule of Minimum Requirements" of the Illinois State Board of Health. What are the college regulations in this respect? There are 90 degree-conferring regular medical schools in the United States; of these, 31, or 30.44 per cent., require that the candidate for graduation must have had clinical instruction, or must have attended clinical lectures. In some cases the statements are exceedingly vague, *e. g.*, "he must have attended clinical lectures and dissections." It may be remarked that a student may attend clinical lectures and learn but little, just as he may attend dissections and not learn practical anatomy. While we do not assert that students may be graduated from 59 of the 90 regular medical schools of the United States without having received clinical instruction, this is certainly a fair inference; and we do not believe that this inference falls far short of the truth. Medical colleges are not prone to make their requirements appear less than they are.
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> What of bed-side teaching? Are there a dozen schools in the country the students of which are familiarized with disease at the bed-side? We doubt if there are. It may be said that bed-side teaching is practically impossible in many of the schools, on account of the large number of students. But the question is as to what should be done. The graduate that has not had bed-side instruction is not fitted for the practice of medicine; he may learn in time, but for all that he is not a proper person to take charge of a case of illness. To us it seems a self-evident proposition that the practical examination and treatment of patients is a necessary feature of the instruction of the medical student and of the examination for the degree of or license to practice medicine.
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> In a letter to the New York Medical Journal, regarding the communication already referred to, DR. DUNCAN ROSS says: "We cannot close our eyes to the fact that . . . . medical teaching is very largely didactic, and that students do not, except to a very limited degree, avail themselves of the clinical material in our hospital wards. There are

several reasons for this neglect of teaching at the bed-side, among which we may enumerate: 1. That students have been for so long a time drilled in didactic teaching at the expense of clinical work. 2. That medical clinics in the amphitheatre are practically the same as didactic teaching, the classes being so large that those in the front seats only can avail themselves of the signs and symptoms elicited. 3. That students are graduated after an examination on the didactic instruction, and not on their knowledge of the art of medicine as taught at the bed-side. And we might further add that clinical teaching has been prohibited by the governing boards of many of the institutions for the sick. The best way to simulate interest in clinical study in the student is not by an eloquent discourse on signs and symptoms and morbid conditions, but by making him, under competent supervision, elicit signs and symptoms for himself and accustom himself to the treatment given; and, in the event of death, making him conduct the autopsy in a systematic way, under competent supervision. To replace, in a measure, didactic by clinical teaching will necessitate radical changes in our present methods of teaching medicine. No one man can hope to teach the art of our profession successfully, in any of the practical departments of medicine, to five or six hundred students "

The extent to which this method of teaching is practiced in this country is far too limited. The medical student in the United States sees, as a rule, many surgical operations, but has little individual instruction in surgical diagnosis and operative surgery; he hears lectures on cases of diabetes, phthisis, etc., and rare forms of disease, but has little opportunity to examine personally examples of disease that he will meet with in daily practice He may graduate from some of our colleges without knowing how to make an analysis of urine. Clinical teaching in the dead-house—if we may use such an expression—is also too much neglected.

We know that there are some colleges in the country in which clinical teaching is a prominent feature of the courses; but these colleges are too few. Medicine cannot be learned from books and didactic lectures alone.

THE REGULATION OF DISEASED TRAVELLERS.

A correspondent of the British Medical Journal calls attention to a most important subject, the dangers to which travellers in good health are subjected in being associated with those affected with communicable diseases. He takes exception particularly to consumptives, who he thinks should have separate compartments on ocean steamers and railroad trains. Certainly the subject is one that is worthy of careful consideration, and much could be done to make the risk less than now and regulate to some extent at least this means of extending disease. Our National Board of Health should take this matter in hand.

An Alarm Thermometer.—DR. W. ARNOLD expresses the opinion (Brit. Med. Journ.) that many lives are lost by the temperature of the sick rooms falling or rising injudiciously, the first warning being, in the case of not a few, that a relapse, perhaps a fatal one, had occurred. He suggests that a modification of one of the forms of thermometer by which an electric signal gives notice of rise or fall—the thermometer now much used for early detection of fires in mills, etc.—should be generally adopted in hospitals, and, where necessary, in sick chambers.

Book Notices.

A REFERENCE HAND-BOOK OF THE MEDICAL SCIENCES, Embracing the Entire Range of Scientific and Practical Medicine and Allied Sciences. By Various Writers. Illustrated by Chromolithographs and Fine Wood-Engravings. Edited by Alhert H. Buck, M. D., New York City. Volume VII.
New York: William Wood & Co.

The scope of this really great work has already been indicated in these columns, and with the appearance of each succeeding volume its growing excellence becomes more and more apparent. In the number now before us the magnitude of the work is amply sustained. It embraces the whole range of medical and collateral subjects whose titles are contained in an alphabetical enumeration between "Teratology" and "Worms," and the range of subjects thus discussed is very extensive. Each subject is treated with a fullness which is well nigh encyclopædic, and it is not going beyond the mark to say that the work stands unequalled among the products of the medical press for the variety and the completeness of the discussion of its contents. Think of any subject directly, and even remotely coming under this head of medicine, in its broadest significance, and you will find it discussed in this great work in a manner unsurpassed elsewhere. This is, indeed, great praise but it is not unwarranted by the facts. The work is a library in itself. The contributors embrace names long familiar to the reading portion of the profession as those of the leaders of medical thought.

ATLAS OF VENEREAL AND SKIN DISEASES, Comprising Original Illustrations and Selections from the Plates of Prof. M. Kaposi, of Vienna; Dr. J. Hutchinson, of London; Prof. I. Neumann, of Vienna; Profs. A. Fournier and A. Hardy, and Drs. Ricord, Cullerier, Besnier and Vidal, of Paris; Prof. Leloir, of Lille; Dr. P. A. Morrow, of New York; Dr. J. Nevins Hyde, of Chicago; Dr. Henry G. Piffard, of New York, and others. With Original Text by Prince A. Morrow, A. M., M. P., Clinical Professor of Venereal Diseases. Formerly Clinical Lecturer on Dermatology, in the University of New York, Surgeon to Charity Hospital, Etc.
New York: William Wood & Co.

Fasiculi X, XI and XII of this Atlas have just come from the press. The plan of work has been described in our notice of the preceding numbers and it but remains for us to say that the fasiculi before us show no letting down from the excellence which characterized their predecessors. For completeness of the text and faithfulness to nature of the Plates, the work stands unsurpassed, if indeed, equalled among works of similar scope.

A Donation to Harvard.—Under the will of MR. J. INGERSOLL BOWDITCH, of Boston, Harvard College will receive $6,000, the income of which is to be expended under the direction of the Professor of Physiology, for the promotion of original investigations in the Physiological Laboratory of the Harvard Medical School.

Notes and News

Mrs. Stowell Appointed Special Microscopic Artist of the Botanical Department at Washington.—We take the following from the college paper of the University of Michigan: "The faculty is shortly to lose one of its most valuable and widely known members. MRS. STOWELL, who has been connected with the Botanical Department, and who has contributed so largely to its success, has been appointed Special Microscopic Artist of the Botanical Department at Washington, at a salary of $2,000 per year. While we join with our readers in extending congratulations to MRS. STOWELL on account of her new position, yet we voice the sentiment of the students in regretting her departure. No one has had work under her direction, but will testify to her inspiring influence in awakening a true interest in her students for the work in which they are engaged. The lady students will lose a warm friend, while the social circles of Ann Arbor will miss her exceedingly."

We desire to call the attention of American botanists to the above for the reason that heretofore structural botany has occupied but little, if any, of the attention of the Botanical Department at Washington. While DR. VASEY is doing such thorough work in systematic botany, he is to be congratulated in having secured such assistance in what is called "the new botany." MRS. STOWELL has taught this subject to pharmacy students for twelve years, and current medical literature has been frequently illustrated with her exquisite drawings.

Forty Thousand Anæsthetizations with Chloroform without a Death.—At the distribution of the prizes to the students of the Hyderabad Medical School, by the Duke and Duchess of Connaught, on January 25th, SURGEON-MAJOR LAWRIE, M.D., Principal of the Medical School, in a short address, referred to the commission appointed by the Nizam's Goverment to make experiments with reference to the effects of chloroform. This commission performed hundreds of experiments on dogs, and never found that the chloroform narcosis affected the heart until after respiration stopped. "This," adds DR. LAWRIE, "tallies exactly with my own experience. I have given chloroform as often, or oftener, than any man living, and have never had a fatal case; and I can state positively that in 40,000 or 50,000 administrations I have superintended, I have never seen the heart injuriously or dangerously affected by it. I take no credit to myself in this matter. I have simply carried out in India the principles SIMPSON and SYME practiced and taught in Edinburgh." In the hospitals attached to their school, chloroform was invariably given with absolute, or, he might almost say, with guarteed safety by students, and they were never allowed to examine the heart beforehand, or feel the pulse during its administration. Chloroform seems to be especially well adapted to the Indian climate.—*Med. Record.*

The Doctor's Lot.—The many asperities of a physician's lot are all unknown to the public at large. There is a general idea that some doctors work very hard, and others charge inordinately, and a few deserve all the money they get. But that a medical man needs anything but fees is a novel idea to those who require his services. Hath not a doctor sensibilities? Is he not frozen by the same cold, and cheered by the same warmth, as the non-scientific portion of the community? A scientific education does not necessarily extract the milk of human kindness, nor extinguish all human sentiment. Doctors are just about what the old woman said of people at large—they are very much like other folks. And when roses spring up along the pathway of life—and they do now and then—they are just as beautiful, just as sweet, just as encouraging to the physician as to another. Now and then a word of appreciation, some expression of gratitude, or praise, lifts this busy worker above the toil and moil of this every-day world, and gives him strength to pick up his burden of carking care and go on again with a stout heart.

Annual Announcement of the Michigan State Medical Society, 1889.—The twenty-fourth annual meeting of the Michigan State Medical Society will be held in Kalamazoo, Thursday and Friday, May 9th and 10th, next, and prelimary arrangements for it are already completed.

Secretaries of Sections.—Practice of Medicine—H. B. Hemenway, M. D., 524 South Park St., Kalamazoo. Surgery—F. W. Mann, M. D., 250 West Fort St., Detroit. Obstetrics and Gynecology—C. Henri Leonard, M. D., 18th John R. St., Detroit.

Observe that the meeting is called for May 9th, instead of May 10th, as published in the Transactions.

Note.—To be elected to membership necessitates being present.

Cost of the Yellow Fever Epidemic.—At the meeting of the New York Academy of Medicine, recently, DR. W. E. FOREST spoke on the cost of the yellow fever epidemic. He said that the epidemic in the south in 1878 cost 25,000 lives and $200,000,000. He claimed that the mild winter argued ill for the south this summer and 1878 might be equaled. DR. FOREST claimed that yellow fever was one of the easiest epidemics to stamp out provided the necessary authority and funds were allowed, because it

only traveled on the surface of the earth and at the rate of fifty feet per day. He recommended that the government take hold of the matter at once and that Congress appropriate at least $100,000,000 for necessary tents and paraphernalia.

Crude Drugs as Compared with Alkaloids.—There is now much discussion, says our Paris correspondent, as to whether cardiac medicines should be given in the form of an alkaloid, or whether the preparations of the crude drug should be used. Huchard, Dujardin-Beaumetz, and many others believe that they have obtained better results by the use of the drug itself, while Sée and his followers prefer the alkaloid. The latter hold that an alkaloid is always the same, while the virtues of the drug are uncertain and depend upon the age, etc., of the plant when gathered, and upon the time it has been kept before being used.—*N. Y. Med. Journal.*

A Rival to Quinine.—It is reported that DRS. ARATA and CANZONERI have made a chemical examination of the bark of the Cascarilla morada, which is said to possess therapeutic properties resembling those of cinchona. It is found in the northern provinces of the Argentine Republic, and in some parts of Bolivia. They state that the bark contains an alkaloid, for which they propose the name, moradeine. It also contains another principle, which crystallizes in colorless needles or prisms, and has acid properties, though it does not form stable compounds with alkalies.—*Drug. Circular.*

Investigation of the Pontiac Tragedies.—The Governor has appointed DR. HAL C. WYMAN, of Detroit, to represent the Board of Charities in the asylum investigation, in accordance with the house resolution, and Secretary STORRS will act as chief clerk of that committe. The house committee with these two will begin work at the Pontiac asylum on Thursday, March 21st.

A Large Fee.—A wealthy sugar manufacturer of Odessa, who died recently of typhoid fever, not being content with the five Odessa practitioners in attendance, sent first to Kief for PROF. TRICHEL, and finally, a few days before he died, to Vienna for PROF. NOTHNAGEL, for whom a special train was ordered. It is stated that the fee given to the eminent Austrian professor was £1,500.—*The Lancet.*

New Supplies of Pichi.—Messrs. Parke, Davis & Co. announce that they have now received ample supplies of the drug pichi which has assumed such prominence as a sedative in inflammations of the genito-urinary tract and especially in cystitis. The fluid and solid extracts and capsules can now be supplied in any desired quantity.

Therapeutic Brevities.

Pengawar Djambi, as a Hæmostatic.—According to Mr. B. Reber (Der Fortschritt), the drug is a most excellent hæmostatic, which has been almost neglected, but is again coming into use. It consists of the silky, glossy, yellow or brown hairs on the stem of several kinds of tropical ferns. The genuine pengawar djambi, which comes from Djambi, in Sumatra, is gathered from several species of the genus *cibotium*. It is well to slightly crush the hairs before applying. In a note in the London Medical Record, December, 1887, Dr. F. A. Junker gives his experience as follows: "I had during the last Franco-German war frequently an occasion of testing the hæmostatic properties of the pengawar djambi. I employed it in many cases of capillary hemorrhage, and of bleeding from small vessels, which were either cut, torn, or laid open by sloughing—in some instances even on very extensive surfaces, and for plugging, generally only a thin layer of it was required, and the bleeding was even arrested before the superior strata (or, in plugs, the more central portions,) had imbibed the blood. The pengawar, if smoothly adapted, can be easily removed without causing irritation, as the hairs will not then become matted, and will not clog and stick to the wound."

The Therapeutic Gazette says of this agent "To the physiological surgeon it is extremely valuable on account of its power of rapidly coagulating blood and forming a plug, which for the time being will stop hemorrhage even from large venous vessels. Thus, in opening up the spinal cord there is usually an excessive outpouring of blood from the torn sinuses, an outpouring which may at once be arrested by stuffing pengawar djambi into the wound. It is free from irritant properties, and we see no reason why it could not be made the bearer of antiseptic substances. Under its influence we believe that any cut surface would rapidly dry, and we trust that some of our surgical readers will make a practical test, and report the results in our columns."

The Couveuse.—Some of the readers who turn to this article would probably understand it better if we had called it the baby incubator, for such is the actual character of the *couveuse*, a French invention for the propagation of prematurely born or feeble children. It may be used for any kind of babies, French, American or other nationality, and will be found of great advantage when the physician is put to his wit's end in order to save a premature infant. Briefly, it consists of a frame work enclosed and so arranged that the infant can be inspected without removing it from the apparatus, and supplied with artificial warmth regulated by the thermometer. This air is properly moistened by being passed over steam, and the whole apparatus forms an interesting subject for investigation.

As a long time must elapse before its general introduction, we may mention a substitute for the incubator. When a child is born showing signs of weakness, no dress should be given except a napkin, but in place thereof a quantity of cotton wadding in sheets should be procured, and after having been thoroughly

warmed the infant should be wrapped up in it, and kept that way for days at a time. The cotton may be kept in band-boxes in the oven of the stove or range, and changed from time to time as may be deemed necessary, and it is wonderful how well they thrive under such unfavorable conditions. There will be found people, of course, who will object to any such plan, and you will have to let them have their way, but we venture to say that in the absence of the *conveuse* the best results will be secured by adopting the substitute we have recommended.—*Med. Register.*

A Novel Cure for Rheumatism.—Experience has shown that it is possible to establish a tolerance for the bites of insects, such, for instance, as mosquitoes. New comers into mosquito districts find existence a burden during the first few days, but later on the bite is scarcely noticed. It seems that the same tolerance may be cultivated for bee stings, and after a certain number of times the swelling and pain which usually follow are no longer observed—a result attributed to an acquired immunity. Dr. Terc has noticed that rheumatic subjects are less susceptible to the effects of bee stings than most people, the tumefaction only presenting itself after several stings. If these be repeated a point of saturation is soon reached at which it can no longer be induced. Curiously enough, when that point is reached the patients are also relieved of their rheumatism, and appear to be proof for some time against a relapse. Dr. Terc considers, therefore, that it is possible to procure an immunity against rheumatism by saturating the patient with the poison of the bee. He has even tried it in 173 cases, in which 39,000 stings were inflicted. He claims to have attained some success in the treatment of acute cases, but it was especially of benefit in the chronic forms, when the patients seemed almost past help. Some of them, however, required several hundred stings before they expressed themselves satisfied, but the author hastens to inform us that rheumatic patients are less sensitive to bee stings than ordinary healthy persons. The treatment has at any rate the merit of being easily applied and costless.—*Med. Press and Circular*, Feb. 13.

A New Medical Shrub, Alterative and Diuretic, the Symphoricarpus Vulgaris, or Coral Berry.—The symphoricarpus vulgaris to the medical profession is a new diuretic and alterative, and has never been used as a medicine by any one to my knowledge. It belongs to the natural order Caprifoliacæ, and is common in the Southwest over a wide area of country. The sambucus, triosteum, and viburnum are genera of the same order, and are well-known medicinal substances. The symphoricarpus vulgaris is a low under-shrub, leaves oval, seldom over one inch long; corolla, sparingly bearded within; fruit, red, remaining on all winter; twigs, often stoleniferous, and are the parts used in medicine. Water and dilute alcohol extract the virtues of the shrub. The infusion increases the urine very greatly. As an alterative and diuretic I find it valuable.—DR. W. S. NEWLON in *Med. Bulletin*, March 1889.

Tincture of Castor in the Morphine Habit.—A farmer's wife was given morphia for severe pains following the acute stage of puerperal peritonitis. She soon became so accustomed to it that she took daily 1·06 gramme in solution. Dr. Cramer, insisting on its discontinuance, sent her as a placebo to satisfy her craving, some tincture of castor with the assurance that this medicine would fully replace the first, and awaited in some trepidation her reproaches on his next visit. To his astonishment, however, she thanked him for the new medicine and told him how well it agreed with her. The severe pains had entirely disappeared, and a few drops of the tincture sufficed to relieve the slight attacks she now experienced. The patient, whose state had been most unsatisfactory soon became convalescent, and the exudation and tumor gradually completely disappeared.—*Lond. Med. Recorder.*

Eucalyptus Oil in Phthisis.—Dr. Philip, at a meeting of the Edinburgh Medico-Chirurgical Society, stated that for eighteen months he has been administering pure eucalyptus oil internally in phthisis with great advantage. The "compound eucalyptus cream" was the result of experiments carried out for the purpose of combining the drug with cod-liver oil. The emulsion contained 5 minims to 1 drachm of eucalyptus oil, and 75 per cent. of cod-liver oil. It was borne well by patients who could not take other preparations of cod-liver oil. The eucalyptus oil disguised the flavor of the cod-liver oil to a remarkable degree.—*British Med. Journal*, February 2, 1889.

Antipyrin in Chordee.—Dr. Dixon recommends antipyrin in doses of fifteen grains at bed-time as a very efficient preventative of chordee.—*Med. Record.*

Medical Progress.

THE INFLUENCE OF BITTERS ON THE DIGESTION AND ASSIMILATION OF ALBUMINOID MATTERS.—Some experiments made by Leven* go to show that the ordinary bitters (extract of cinchona, quassia amara, nux vomica, gentian, etc.) promote for a time digestion and assimilation; they are, however, soon followed by loss of appetite and dyspeptic troubles. According to Leven's interpretation, these medicaments excite the solar plexus and energize the activity of the gastric glands and muscular movements, but soon produce by exhaustion a diminution of this activity and an irritated and congested state of the gastric mucous membrane.

Several years ago Buchheim and Engel undertook a series of experiments to ascertain the influence of bitter substances on digestion, and concluded that "these substances have no action on the transformation of albumen into peptone, and they oppose fermentation." It is by virtue of this property, according to these physiologists, that bitters act so favorably in certain diseases of the digestive tube.

Since then, Tschelzoff, chief of Prof. Botkin's

*La Nevrose, Paris, 1887, p. 34.

clinic, has taken up anew this interesting question of the influence of bitters on digestion and the nutrition of the animal organism in general.† His conclusions are "that extracts of the so-called pure bitters which are usually prescribed with the view of stimulating the secretion of gastric juice, and of aiding digestion, so far from having any beneficial action of that kind, are absolutely injurious, in that they retard the digestive functions." He experimented with extracts of aurantium, gentian, trifolium, absinthium, columba, cascarilla, and quassia, on (1) gastric digestion and the secretion of gastric juice; (2) pancreatic digestion and the secretion of pancreatic juice; (3) the secretion of bile; (4) fermentation; and (5) nitrogenous metamorphosis. He arrived at the conclusion that bitter extracts, even in small doses, interfere with artificial gastric digestion of animals, but not to so great an extent. Large doses of bitter extracts diminish the secretion of gastric juice, although small doses effect a slight and transitory increase of it, the digestive power of the fluid being, however, in all cases diminished. Bitter extracts have no effect on the secretion of pancreatic fluid, but they nevertheless retard gastric digestion. The action of bitter extracts on the secretion of bile is various; extract of absinthium, extract of trifolium, and large doses of extract cetrarin slightly increase it while extract of quassia, extract of calumba, and small doses of extract cetrarin have no effect at all. Bitter extracts have no antifermentative effect, but rather hasten and promote fermentation, especially in large doses. The putrefaction of blood and urine is favored by the presence of pure bitters. With regard to the effect of bitters on nitrogenous metamorphoses, the Russian experimenter found that under their influence the quantity of waste nitrogen in the urine and fæces was increased; in other words disassimilation was accelerated, while on the other hand assimilation was diminished.

It would seem from these experiments that bitters are of very questionable utility in the treatment of digestive disorders. It will not do, however, to adopt this conclusion without considerable reservation; experiments made in test-tubes in the laboratory and experiments on animals should not be allowed to outweigh the results of clinical observation; and to quote the words of Lauder Brunton, "the evidence of clinical experience in regard to the utility of bitter extracts is so strong that it is plain, either that the experiments have been imperfectly conducted, or that we must look to some other organ than the stomach for an explanation of the beneficial action of bitters in dyspepsia.—*Boston Med. and Surg. Jour.*

†Bull. gen. de thér., t. cxl, p. 90. London Lancet, 1886, part 1, p. 938.

ACETANILID IN INFANTILE CONVULSIONS — Dr. I. V. LOVE, in a paper published in the American Medical Association, emphasizes the following points:

1. We must not lose sight of the fact that a convulsion is not only a symptom, but a disease. We must promptly determine the cause and then intelligently and energetically eliminate it.

2. We can probably classify the majority of cases of infantile convulsions as being caused by ill-fed nerve centers (rachitics and victims of tuberculosis), reflex irritations and cerebro-spinal engorgements and congestions, dependent upon the high temperature incident to the poisons of malaria, the infectious diseases and narcotics.

3. As we can make a triple classification in the etiology, it follows that we should have a similar division in the matter of treatment, and, succinctly stated, we may designate the latter as (a) nutritive and constructive; (b) a removal of all irritation from the sympathetic system; antiphlogistic, eliminative, cooling and sedative.

4. While calming the fears of the agonized parent whose child is taken with a spasm, by assurances that an infant rarely dies in this manner, and causes the most insignificant sometimes occasion the disturbance, we should not fail to impress them with the fact that it is a serious matter, that the best possible way to treat the convulsive diathesis is a perfect hygienic regimen, prevention by good food, proper clothing, fresh air and sunshine, plenty of sleep and avoidance of all excitement.

6. In discovering a child in an eclamptic paroxysm no one article is more essential than a well tested thermometer (it being practically the doctor's sixth sense, which enables him to go far toward making a diagnosis), and the only proper place for locating it in ascertaining the degree of fever is in the rectum, leaving it *in situ* not less than three minutes.

5. For the prompt quelling of a spasm, chloroform by inhalation is a most valuable remedy, but it should be used carefully and not too early, as it may serve as an agent to mask the true condition of the patient, the hiding of the danger signal kindly thrown out by Dame Nature.

7. In the cooling bath we have a prompt and potent agent for quelling the riotous condition of the cerebro-spinal system. Not the sudden ice-cold bath that borders on the brutal, but water in the beginning about the temperature of the patient and gradually reduced to 70° or 60° Fahrenheit, and possibly lower if the indications call for it.

8. In acetanilid I am sure we have a most valuable remedy for the relief and prevention of convulsions. Clinical experience for one year justifies the conclusion. The drug is rapid, usually beginning to manifest itself within an hour, and not infrequently within twenty minutes; its full effect reached in four hours.

Pulse and respiration are slowed, arterial tension rises, diuresis and diaphoresis occur, pain is relieved and sleep usually ensues. No very great amount of depression follows if given carefully, but an exanthematous rash now and then accompanies its administration.

THE TREATMENT OF RECENT PLEURITIC EFFUSION BY SALINE CATHARTICS.—Diuretics and cathartics have always been largely employed with a view to the reabsorption of fluids that have accumulated in the various cavities of the body. It is only recently, however, that the use of highly concentrated solution of saline cathartics has been urged for this purpose. In ascites and all dropsical conditions,

evidence is not wanting to show that some good may be accomplished in this way.

Dr. P. Blaikie Smith, of the Aberdeen Royal Infirmary, has now extended the method so as to include pleural effusions. He says in the British Medical Journal, October 13, 1888, that those whose general practice it is to treat cases of considerable pleuritic effusion by tapping the pleural cavity must confess that, not infrequently, the fluid reaccumulates, and that it occasionally becomes purulent. Recognizing the truth of this clinical observation, he has for some time past discarded operative interference in such cases, relying, for the relief of the effusion, upon the effects produced by saline catharties, administered in a concentrated form. This class of drugs primarily induces watery evacuations from the bowels, with the necessary result that the blood becomes inspissated and absorption stimulated. Bearing in mind this fact in therapeutics; recollecting, too, that serous exudations have been known to disappear during an attack of cholera (when the blood is to a great extent deprived of its watery element), and that the simple withdrawal of fluids from the diet has been advocated as curative of pleuritic effusion, it seemed reasonable to suppose that if a patient, the subject of this complaint, were starved of fluids and purged by salines, the refulting concentration of the blood would be remedied at the expense of the effusion. In this expectation he was not disappointed, and he gives the records of several cases successfully managed in this way. He uses the magnesium sulphate dissolved in as small a quantity of hot water as possible. The dose employed is two drachms to half an ounce twice a day.

Dr. Smith admits that patients of poor physique, or in whom a phthisical tendency exists, are ill suited for this plan of treatment. So, too, when dyspnœa is an urgent symptom, especially when accompanied by signs of collateral hyperæmia or œdema, the use of the trocar gives more speedy relief than that afforded by free purging. Still he concludes that one meets with many cases where the effusion is large and of recent occurrence, where dyspnœa is not pronounced, and where signs of physical and constitutional debility are absent. These are the cases which, according to him, are peculiarly adapted for treatment by this method.—*Med. Record.* March 2, 1889.

THE TREATMENT OF URETHRAL STRICTURE BY ELECTROLYSIS A FAILURE.— Dr. E. L. Keyes, after a faithful trial of electrolysis in stricture, pronounces the method a failure. In a paper on this subject, published in the New York Medical Journal, he says that a widespread belief exists in the community, lay as well as medical, that material progress has been made of late years in the use of electricity as applied to the cure of urethral stricture. This belief includes the three presumptions:

1. That anyone, by following rules, may use the method successfully.

2. That electricity does no harm to the urethra.

3. That stricture cured by electricity is dissipated by absorption, and the urethra remains permanently open.

There are no foundation for these beliefs. Dr. Keyes had occasion to observe eight typical cases, in which the method, as advocated by Dr. Newman, was given a fair trial. In one of these cases, Dr. Newman himself applied the electricity. All of the cases proved to be failures. Dr. Keyes concludes his article as follows:

"I may state that electrolysis with a very mild current—I prefer to put it at less than two milliamperes and a half—does no harm, in fact, does nothing that I can appreciate, and does not interfere with the benefit to be derived from ordinary dilatation. I believe that a strong current is full of danger, both immediately from irritating effect and ultimately from cicatricial effect; and that employment of the negative pole does not prevent this.

My study of the subject and the experience it has brought me, digested with all the impartiality I possess, lead me to state that the allegation that electricity, however employed, is able to remove organic urethral stricture radically, lacks the requirement of demonstration. The confidence of its advocates that it will radically cure organic fibrous stricture is, in my opinion, due either to the combined credulity of the patient and imagination of the surgeon, or to some special but fortuitous act of Providence, upon the co-operation of which, in the case of his own patients, the general practitioner cannot with any confidence rely."—*New York Medical Record.*

CASCARA IN RHEUMATISM.—The patient, says J. S. Morris, M. D., of Prairie City, Iowa, was an old lady of 64 years of age. She had suffered from rheumatism for years and had been under treatment by quite a number of physicians, without having a cure effected. I was called in to treat the case, and concluded it was a good one in which to test the efficacy of cascara sagrada.

I prescribed 2 ozs. of fl. ext. cascara sagrada, in 15-drop doses, to be given every four hours. After giving the first few doses she began to feel relieved, and in two weeks' time she was entirely well, but she was so well pleased with the action of the medicine that she continued taking it until the two ounces were used.

Over three months have rolled by and she has had no return of the trouble, and says she has not felt so well for years.

[We are not aware that any explanation of the *modus operandi* of this new therapeutic action of cascara sagrada has as yet been attempted, such articles on the subject as have come under our notice consisting of the pure statement of facts. We know, however, that this drug has a very decided influence over the eliminative functions, and it is but reasonable to look for the secret of its efficacy in rheumatism in this direction. A writer in the *British Medical Journal* has found that a combination of the drug with the salicylates is especially efficacious. The salicylates act by the antidotal property of the salicyluric acid which they form in the blood. The desirability of an eliminant in conjunction with this action is apparent, and cascara sagrada is probably beneficial through this property.—ED.]—*Med. Science*, Feb. '89.

The Medical Age.

Vol. VII. DETROIT, APRIL 10, 1889. No. 7.

Original Articles.

THE LOCAL TREATMENT OF THE BLADDER*—POLLUTIONS IN THE FEMALE.†

BY W. E. ROBINSON, M. D.

In chronic diseases of the bladder the local treatment is far superior to any other, being at the same time the most rapid, also the most certain method of curing this class of troubles. The medicinal injection of the bladder, however, is carried out in so many different ways and with so many different instruments that it is well worth while to consider some of these different procedures and see which is best for each particular case.

The chronic diseases of the bladder, only, should be treated by the local method, for the acute forms recover, with an appropriate dietetic and medicinal treatment, and the cure is often perfect. Chronic affections, however, do not recover, as a rule, because there exists some mechanical impediment to the escape of the urine, which, in connection with abnormal constitution of the same, favor the persistence of the malady; and as long as these conditions obtain, an improvement is only to be achieved by means of local measures. In most cases the trouble is a chronic inflammatory condition—the chronic vesical catarrh.

The treatment for this affection must be varied according as the individual affected is young or old, and also according to the etiological factors.

In cases of younger individuals suffering from chronic vesical catarrh as a result of gonorrhœa, the neck of the bladder and the posterior portion of the urethra must never be left out of account. The treatment of the bladder alone will seldom lead to a cure; for as the trouble arose originally from the urethra, the vesical catarrh forms, so to speak, simply a continuation of the urethritis posterior. This occurs all the easier since the wall of separation between the urethra and bladder, which is formed by the sphincter internus, is so weak that inflammatory processes located in the former region, or the prostate, can pass over without difficulty into the bladder. Since, then, in gonorrhœal affections of the bladder, the urethra, prostate, or vesical neck are always affected, and moreover in most cases the principal seat of the affection lies in the posterior urethra, and the bladder trouble represents only an extension of the malady, it follows that the posterior urethra must be brought within the sphere reached by the treatment in order to achieve good resuls. If the ordinary method of washing out the bladder is employed, and the catheter introduced in the usual manner, it acts as a perfect tampon to the neck of the bladder, so that, however thoroughly the bladder itself may be washed out, not a drop of the fluid can reach the primary seat of the trouble, located in the neck of the organ. In these cases the best method of procedure is as follows: The patient is placed on his back, with the pelvis slightly elevated. A basin is placed between the thighs, and a small catheter, to which is attached a short rubber tube, is introduced. If the bladder is sufficient and the patient has just passed water, then there will hardly a drop of urine flow from the instrument; if, however, the bladder be insufficient, then there will escape a quantity of urine proportionate to the amount of insufficiency present. When the bladder is thus emptied the catheter should be drawn out from the bladder into the vesical neck. This is generally accomplished when the instrument is withdrawn a distance of three centimeters. Now the medicated fluid is gradually injected, lukewarm, into the bladder by means of an ordinary syringe, to the amount of about 250 grammes. The proof that the opening of the catheter is located just at the neck of the bladder, is that, although the fluid enters easily into the bladder, when the syringe is removed not a drop escapes from the instrument. The explanation of this is that the feeble sphincter internus offers no resistance to the advancing fluid, but when the catheter is withdrawn the wall of the urethra acts as a valve to the instrument, so that the injected fluid cannot flow out again. When the injection is finished, the catheter is removed, and the patient is made to stand up in order that the fluid may be discharged spontaneously. Thus the whole injection passes a second time through the neck of the bladder and the urethra, so that these parts have, as it were, a second injection in an opposite direction.

Soft catheters of vulcanized rubber are not good for this purpose, for they are often forced

*Notes from the Ultzmann Clinic for Genito-Urinary Diseases in Vienna.

†From Article by Dr Hane, of Vienna.

out of the urethra during the injection by the backward pressure of the injected fluid.

If the bladder is insufficient and quite a good deal of urine escapes through the catheter after the patient has passed all he could voluntarily, then it is well, after the injection has been given, to push the catheter again into the bladder before finally withdrawing it, in order to empty the organ completely of the medicated fluid.

In cases of insufficient bladders it is better to perform the whole operation in the standing postion, as both the urine and the fluid injected escape thus, more rapidly and more completely. Young individuals have, as a rule, sufficient bladders, nevertheless, if there has been frequent retention of urine previous to the vesical catarrh, as is often seen in prostatitis, then insufficiency of the bladder may be met with, even in young and vigorous subjects.

If the bladder is not completely emptied of injected fluid severe pain and strangury may be produced even if more serious results do not follow. In tubercular catarrhs of the bladder as well as those occurring in younger individuals without previous gonorrhœa, the local treatment, although not contraindicated, is generally without result. If the seat of the trouble lies in the bladder itself and one can exclude participation of the neck of the bladder, then, of course, it is sufficient to treat the bladder alone.

These are generally older individuals, suffering from chronic vesical catarrh, as a result of hypertrophy of the prostate and excentric hypertrophy of the bladder, or those who suffer from paresis or insufficiency of the bladder of a high grade. In such cases the operation is generally performed by introducing a catheter into the bladder and then injecting until the fluid returns unchanged. This is best done with a soft elastic catheter and a hand syringe, and one should proceed as follows: If the patient is strong the operation should be performed in a standing position, as the bladder empties itself much better, and also the sediment deposited from the urine can be removed much more completely than when the patient is lying down. If the individual is weak or feeble, then the injection may be performed in the sitting posture, or it may even be done in bed, as, for example, when the patient is quite ill. When the patient can be placed in an arm-chair, he should occupy a position between sitting and lying, and a basin should be pushed under the body so that the whole perinæum is free.

The urine flows off in sitting quite as well as in standing, and the bladder can be emptied and injected very nicely in this position. If the patient is in bed, then the hips should be raised by placing a pillow under them, and an oval vessel of any kind, as for example a pus basin, should be placed between the thighs. In this horizontal position, however, the operation is more difficult to perform.

In cases of paresis and insufficiency of the bladder, the urine will not all flow off through the catheter. In such cases the bladder is only a flabby sack and one must help the operation by pressing with the palm of the hand upon the supra-pubic region; even then the operation will be only imperfectly performed. For the same reason the cleansing of the bladder in this position can generally be performed, but imperfectly.

The standing position is in all respects the best, and for these operations with the catheter it should be preferred to any other.

In the case of very sensitive patients, and always when the introduction is unattended with difficulty, a soft flexible catheter should be employed. Cases of prostatic trouble will often be met with where the passage of a very flexible instrument is impossible owing to hypertrophy of the prostate, or else a hard cicatricial condition of this gland as a result of prostatitis, and in such cases a more rigid instrument will have to be employed.

Metal catheters are the least suitable of all, for they must be employed in the recumbent position, and, moreover, they are extremely liable to injure the urethra and bladder in their passage. The operation of washing out the bladder by means of the *catheter à double courant*, formerly so well thought of, is a method by no means to be recommended, for it is practically impossible to cleanse the organ thoroughly by this means. One is apt to imagine that by means of the continuous irrigation kept up by this instrument, every trace of sediment and secretion must be removed, but in reality this is very far from being the case, for the simple reason that when this instrument is used the bladder is almost completely contracted. When the fluid enters the bladder through one opening in the end of the catheter, it does not distend the organ, because it has a ready outlet through the second opening which is situated close to it.

The result is that the fluid simply flows in at one opening and out at the other and has very little effect upon the vesical walls. After a bladder has been washed out in this manner, it generally contains large quantities of the catarrhal secretion, which can easily be demonstrated by washing a second time by means of an ordinary catheter and hand syringe. When using the *catheter à double courant*, if one will occasionally compress with the fingers, the tube by which the fluid flows off and in this way allow the injection to partially distend the bladder, then the operation of cleaning may be successfull performed.

The use of the irrigator for the cleaning and

medicinal treatment of the bladder is not particularly to be recommended.

If a small irrigator is used which one raises above the head, and then lowers to the floor to allow the fluid to flow readily out of the bladder, and repeats this process several times, the result is that the fluid used becomes more and more foul, from the secretion of the bladder, the longer the operation is continued. If on the other hand a large irrigator is used, such as is generally fastened to the wall, then too much fluid finds its way into the bladder and the organ is too much distended, which can never occur when the ordinary hand syringe is used.

This fact is specially to be kept in mind in cases of paresis or insufficiency of the bladder. These troubles are often rendered worse by the use of the irrigator, whereas the treatment by means of the hand syringe frequently restores to the organ its lost elasticity.

The use of the irrigator is to be recommended in cases of contracted bladder, occurring in younger persons, which sometimes result from parenchymatous cystitis of gonorrhœal origin. In such cases the constant pressure exercised by the fluid from the irrigator, upon the vesical walls, may cause them to dilate and thus increase the capacity of the organ.

In other cases, however, the bladder can never be as well cleansed with the irrigator as with the hand syringe; as for example when there is present a crystalline sediment, such as triple phosphate, and when also diverticula are to be found in the organ, for these intratrabecular depressions can never be washed free of their sediment by the irrigator. In such cases a syringe must be used or even better yet, a pump apparatus similar to those used in the operation of lithotripsy.

With the irrigator, a large quantity of fluid flows quietly into the bladder, which in the first moment stirs up the sediment, but as the fluid continues to enter, the sediment has time to settle again, especially if it is heavy.

With the hand syringe on the other hand, one is perfectly able to control both the quantity of the fluid and the pressure which it shall exert upon the vesical walls. When the bladder is sensitive, the injection may be performed gently and slowly; if this is not the case, or if heavy sediments are present, then the fluid may be driven into the bladder with any desired force, which is extremely difficult to do in the case of the irrigator.

For these reasons it is always best to wash out the bladder with an elastic catheter and hand syringe.

There are many remedies used for the local treatment of the bladder, of which only the more important will be mentioned here.

The fluid should be used lukewarm, since if cold it may produce strangury. Cold injections should only be used in cases of paresis, hemorrhage, or in conditions of lack of sensitiveness of the bladder.

For sensitive bladder we may use: 1. Lukewarm water alone; 2. Lukewarm water with simple tincture of opium, 10 drops to 100 cubic centimeters of water; 3. A $\frac{1}{4}$ per cent. solution of cocaine; 4. A $\frac{1}{2}$ per cent. solution of carbolic acid; 5. A 3 per cent. solution of boracic acid.

For astringent injections we may use: 1. A $\frac{1}{4}$ per cent. solution of alum; 2. $\frac{1}{4}$ to $\frac{1}{2}$ per cent. solution of zinc sulphate; 3. $\frac{1}{10}$ to $\frac{1}{5}$ per cent. solution of permanganate of potash; 4. $\frac{1}{10}$ to $\frac{1}{15}$ per cent. solution of nitrate of silver.

If there is a strong ammoniacal or putrid odor to the urine:

Solution of permanganate of potash, $\frac{1}{10}$ per cent.

$\frac{1}{2}$ liter of lukewarm water to which has been added 3–5 drops of nitrite of amyl.

For phosphaturia:

Solution of salicylic acid, $\frac{1}{2}$ per cent.

Solution of salicylate of soda, 2 per cent.

When the urine contains bacteria:

Solution of corrosive sublimate, 1 : 10,000.

Strong solution of permanganate of potash.

In cases of hemorrhage:

Cold water alone.

Solution of nitrate of silver, $\frac{1}{10}$ to $\frac{1}{2}$ per cent.

Solution of the perchloride of iron, 50–60 drops to a half-liter of cold water.

CLINICAL OBSERVATIONS CONCERNING "POLLUTIONS" IN THE FEMALE.

I have allowed myself to take up the consideration of this subject, since it is one that has interested me deeply for several years past. I feel, moreover, that I may perhaps be able to throw some light upon what is, up to this time, so little understood or investigated.

To begin with, let me define this affection, as follows: A copious discharge from the glands of Bartholini, as well as other and neighboring glands, occurring generally at night and accompanied by voluptuous dreams.

The proof that the term "pollutions" is a correct one lies in the fact that the night-dresses of women otherwise healthy will show characteristic stains similar to those observed in men suffering from nocturnal pollutions; and moreover, that these discharges occurring in the female are often accompanied by convulsive movements in addition to the voluptuous dreams.

Although little is accurately known about this affection, it is not by any means new, for numerous cases may be found in various authors writing in the last decade, and even

quite extended discussion and theories as to its cause, nature, etc.

Thus MANTEGASSA says in his "Hygiene of Love": "Women also suffer with nocturnal pollutions, or, rather, they have voluptuous dreams and sensations, and that discharge from the vagina which ordinarily occurs during the sexual act.

Thereupon he cites the following cases: A young married woman of very erotic temperament, when deprived for four or five days of sexual connection, suffered from pollutions of the kind described above. Another case was that of a virtuous unmarried woman who was affected with voluntary pollutions, which she was rather inclined to look upon in the light of something sinful and demanded to be relieved from them on this acount.

This writer's ideas on the subject cannot be considered clear for several reasons, one of which is that, in the last case, the symptoms, the "voluntary pollutions," and the condition of mental depression point strongly to onanism.

SWEDIAUR, in a work entitled "Onanism and Other Anomalies of the Sexual Instinct," refers to the subject under consideration as follows: "I have also seen pollutions occur, though very seldom, in the female sex, and I am treating at present a woman, 28 years old, who, since an abortion, occurring 1½ years ago, has suffered with frequent involuntary nocturnal pollutions, caused by voluptuous dreams. In all probability the cause of the trouble in this case was the abstinence from sexual connection occurring during pregnancy and previous to abortion, which marked the commencement of the malady.

ROSENTHAL, in the "Clinic for Nervous Diseases," cites a case of pollutions, which he considers to have been a cause of hysteria. The case was that of a hysterical girl, affected in the night with severe convulsions, accompanied by the discharge of a tenacious fluid from the vulva. The girl acknowledged that at such times her mind was filled with voluptuous thoughts. After this condition had lasted for a number of months, genuine hysterical attacks began to make their appearance.

HILDEBRANDT, of Königsberg, refers to the subject as follows: "It is a fact that with many women, especially young widows, there occurs in the night and accompanied by erotic dreams, an abundant discharge from the genitals, which may be compared to pollutions in the male; sometimes the feeling of pleasure is accompanied by painful sensations."

From our knowledge of the genital organs in general, we can only assume that this discharge comes from the glands of Bartholini, and that the painful sensation occasionally accompanying it, is owing to a contraction of the constrictor cuni muscle.

When we consider what has gone before, we find that the ideas as to the nature of the trouble, agree substantially with our own: an abundant discharge from the female genital organs, occurring at night and accompanied by erotic dreams. A point, however, which is left almost untouched, is the spots upon the linen. As to these, it may be said that apart from the fact that they contain no spermatoza, they are quite different in appearance from the semen-spots found upon the linen of men. They do not render the linen stiff as do the latter; have not the sharpely defined dark gray border and are lighter in color.

I will now permit myself to state what the conditions are under which, according to my experience, these pollutions occur, what results they produce and how they may best be treated therapeutically. In my opinion, pollutions in the female are by no means infrequent, and are to be met with in children of 10 years old, as well as at the menopause and even later. I have, myself, treated a remarkably well developed girl, 10 years old, who consulted me in regard to difficulty of urination. The examination of the uro-genital organs revealed normal conditions as well as the analysis of the urine.

The patient complained of frequent micturition, but in addition to that there were present numerous nervous symptoms, such as pain in the small of the back, troubled sleep, a peculiar sensation of drawing in the extremities, etc., a condition for which at first I could find no cause. I one day found at the entrance to the vagina, a slight erosion which led me to suspect onanism, which suspicion turned out to be well founded, for the child finally confessed to her mother that for more than a year she had practiced masturbation almost daily, but in addition to this, she had, about three months ago, conceived a secret fondness for a school companion, and had often dreamed of him, during which times she was conscious of voluptuous sensations and on waking she would perceive a peculiar wetness on the genitals, she was conscious of a peculiar feeling of fatigue at the same time and would remain one or two hours awake, and in the morning when her mother came at the ordinary time to call her, it was only with great difficulty that she was able to complete her toilet and get to school in time. She was formerly one of the best scholars, but toward the last she lost all interest in her school, felt very unhappy and discontented and had great difficulty to conceal all this from her stern father. Separation from the object of her childish affection, a sojourn in the country, baths and exercise in the open air, restored to the little patient, according to the account of the mother, her physical and mental equilibrium.

It was not uninteresting to me that at about

the same time I was consulted by a stately matron 46 years old, who complained also of difficulty in urinating. On certain days, and especially in the afternoon she was compelled very frequently to pass water, and toward the end she experienced a sort of cramp, from which she inferred that she must have some trouble of the bladder. The gynæcological examination disclosed nothing abnormal; the passage of the sound showed a slight tenderness of the urethra. bladder sufficient and urine normal. On account of the above mentioned tenderness, I passed the ordinary steel sound a number of times, the condition improved and I was about to pronounce the patient cured when she informed me that her main trouble was not that for which she had consulted me, but rather a certain uneasiness during the night. Four or five times in the week she would have erotic dreams. feeling at the same time a peculiar trembling of the whole body similar to that occurring during coitus and immediately upon waking she would notice a considerable moisture upon the genitals so that her night dress showed distinct damp spots.

After this would follow a period of depression, and occasionally sleeplessness in the morning along with a sense of weariness, ill-humor, pain in the back, vertigo, etc.

It was now perfectly clear to me that my patient was suffering from nocturnal pollutions. I must add that the lady had been a widow for a year, and that for two months she had not menstruated, and moreover since the death of her husband her sexual passions had remained entirely ungratified. In consideration of these facts it is very easy to see how the sexual abstinence on the one hand and the sexual passion starting up with great force at the time of the menopause on the other, could give rise between them, to the nocturnal pollutions. In my opinion a not inconsiderable contingent for pollutions in the female is offered by the prostitutes, both in the beginning and also in the later stages of their shameless calling.

The following observation furnishes a case in point:

The patient was a young girl, who was formerly a governess, but who for a year and a half had belonged to the ranks of the fallen, and who came to consult me on account of specific pharyngitis. The patient came for some time to my office and it was only after I had pronounced her cured and was about to discharge her that she made me acquainted with another trouble from which she suffered, namely: the occurrence of nocturnal pollutions which for the last few weeks had occurred almost nightly, especially during and just after the menstruation, and rendered her terribly nervous.

Three years previously she suffered for the first time the embraces of a young man with whom she lived for the next year in intimate relations. After the first few months she began to have the sensation of ejaculation and she always longed passionately for the embraces of her lover. The sexual act was generally accompanied with great pleasure, though not always.

At the end of a year her lover died and from this time on through sorrow and unfortunate family relations she found her nature completely changed. A sort of bitterness seemed to have taken possession of her, and as she had now lost her position as governess and was in want of the actual necessities of life, she became a prostitute. It cost her no small effort to give herself thus, to the embraces of the first comer, and this circumstance along with the fact that she was greatly in fear of pregnancy, tended greatly to prevent the sexual act from being consummated in the way that it should. Nevertheless it frequently occurred that she could only with great difficulty, restrain the sensation of ejaculation, especially if the man was one not disagreeable to her. She now began to have these feelings in the night, accompanied by voluptuous dreams and a spasmodic twitching of the whole body and on waking there was a perceptible moisture on the external genitals with moisture spots on the night-dress. She finally made the acquaintance of a man, who protracted the act of coitus to such a degree that she felt herself each time, completely exhausted and was hardly able to restrain the ejaculation. She soon gave up this connection but declared that afterward the pollutions occurred daily and in addition, the various nervous disturbances already noted, made their appearance.

From this it may be inferred that the so-called "coitus interruptus," as practiced by debauchees and men of very strong passions, may often furnish an important etiological factor in the production of pollutions in the female.

Regarding "coitus condomatus" I have no experience except in one case. This was a man who declared that for four years he had been accustomed to have sexual connection with his wife by means of a condom and that both of them enjoyed perfect health.

Another cause of pollutions in the female is to be found in impotence on the part of the male, depending either on the "ejaculatio praecox" (irritable weakness) or upon other causes. The sexual act is either not accomplished, or else lasts for such a short time that the female does not accomplish the "orgasm." This leaves a feeling of unsatisfaction, and during the night voluptuous dreams are very apt to occur. As a further consequence, disturbances of all kinds arise in the uro-genital system

(sexual neurasthenia), which, as already shown above, may lead to all kinds of troubles affecting the general system (general neurasthenia). Moreover, pollutions in the female seem to occur not infrequently as a result of abstinence, especially in those persons who have previously been accustomed to regular sexual indulgence. Such cases occur in women who have lost their husbands by death, as reported by HILDEBRANDT.

Pollutions also occur during pregnancy, generally during the latter months, and in women who have never before suffered with this affection. Whether this is owing to the congestion of the parts dependent on pregnancy, or to the fact that sexual connection is generally avoided at this time, is a point which must remain for the present undecided.

Summing up what has gone before, we may say that pollutions in the female are caused, as a rule, by masturbation or an unnatural performance of the sexual act, sometimes by abstinence.

Regarding the results of these pollutions, there cannot be the slightest doubt, after what has gone before, that they often give rise to conditions whose nature is entirely misunderstood, and for whose treatment all sorts of therapeutic measures are vainly employed, as sexual neurasthenia, and then finally general neurasthenia, accompanied by a whole army of symptoms.

Regarding the therapeutics of pollutions in the female, I am unfortunately unable to communicate anything of great importance. Certain it is that very little is to be hoped, in most cases, from medical treatment. As PROF. KRAFFT-EBING rightly claims, "The restoration of the proper physiological conditions of coitus" is the great desideratum, but it is much easier to make this statement than to carry it out in practice.

Guttceit who possesses a large experience in diseases of women, declares that neurasthenic and hysterical conditions of all sorts resulting from unsatisfied sexual instinct, may be cured by choosing for the patient, a sympathetic and sexually vigorous man. That by the restoration of the proper conditions, such troubles may be cured, both physician and layman are agreed. There is generally this difficulty, however, that aside from moral considerations, which most virtuous women refuse to outrage, wives who sin behind their husband's backs, seldom restrain their passions within proper limits, but on the other hand they commit excesses and thus this same condition is brought about, namely: pollutions. Moreover, there are certain women who either never experience ejaculation or else only in dreams. Since they do not enjoy the sexual act when performed with their own husbands they attempt it with other men but with no better success. Such women are generally most excentric in character, intensely jealous, feel themselves unhappy and hate themselves as well as everybody else. Such women have generally no voluptuous sensations during coitus and the friction of the clitoris produces no more effect than rubbing the shoulder or hand. In cases of this kind what indeed is to be done?

In those cases where women with normally formed genital organs, suffer pain during coitus, and since on this account they do not arrive at the organism and feel afterward worn out and miserable, the trouble is generally owing to a hysterical condition arising from an antipathy, not against coitus in general but against the man with whom they are compelled to practice it. The wife is apt in these cases to refuse to consent to the connection and then as a result she is almost sure to suffer from pollutions.

Under such conditions there is but one thing to be done, the separation of the ill-assorted pair, which is all the more easy as these marriages are generally childless.

The question as to whether pollutions in the female can occur within physiological limits, I think I can answer in the affirmative, basing my opinion upon two cases which have come under my own observation.

CASE 1.—Miss X., 29 years old, has been engaged since her sixteenth year, since which time she has had occasional sexual connection with her intended.

The feeling of ejaculation she experiences only in her dreams, and this once in two or three weeks. She dreams that she is about to perform the sexual act, but before it is accomplished the catastrophe occurs. On awaking she finds an abundant moisture on the genital organs. She soon falls asleep again, and the next day she always feels well. The remembrance of the occurrence is always agreeable.

She has never noticed the spasmodic trembling of the body which has been noted in the other cases.

CASE 2.—Miss W., 25 years old. very strong, a virgin, consulted me for sleeplessness and headache, which occurred when she was compelled to watch for several hours at night, and then, after profound slumber, to wake up at the ordinary hour in the moring. The condition lasted six weeks, having begun with the death of her mother, at which time she had also other causes for worry and anxiety. While she enjoyed gentlemen's society, she had never experienced a special fondness for any one man, nor did she feel the need of sexual relations with the other sex.

She had voluptuous dreams accompanied with emissions three or four times a month, and these always brought her a certain feeling of satisfaction. Her health up to the time of her mother's death had always been excellent.

In conclusion, let me cite a case which shows that pollutions in the female do not always occur, accompanied by voluptuous sensations.

Mrs. X., a weak, nervous lady, dreamt often of riding. She rode in the position generally taken by ladies, and then it would occur to her to take the position used by men, but at the moment when she changed from one to the other, the catastrophe always occurred. There followed a convulsive twitching of the whole body and a discharge from the vulva, after which would come a sense of weariness, insomnia, and all kinds of nervous symptoms.

BRONCHORRHAGIA—PERICARDITIS.*

BY SAMUEL BELL, M. D.†

Mr. N——, aged 30 years, whom I present to you this morning, is a native of Scotland, having resided in this country a period of six years. As you will observe, he is a man of large muscular development, physically well proportioned, evidently belonging to that class of sturdy yeomanry for which Scotland has always been famed. He presents himself to this clinic complaining of a periodical discharge of blood from the mouth, having occurred at irregular intervals for a year previous, at times three months elapsing between the attacks, while at other times immunity would last but one month.

He states that one week ago he coughed up a mouthful of blood which had a decidedly sweetish taste, experiencing at the same time a "trickling" sensation behind the sternum, and feeling of fullness in the chest.

It is important, gentlemen, that we make a correct diagnosis, as the treatment must depend on the cause of the hemorrhage, and we must therefore ascertain its origin. This can be done by exclusion. The blood might come from the stomach, bronchial tubes, pharynx, nose, or in the pulmonary structure from apoplexy or aneurism. In epistaxis the blood is dark and coagulated, is not attended or preceded by cough, and upon ocular examination blood can always be found in the nose, pharynx or posterior nares. When an aneurism ruptures into a bronchial tube the hemorrhage is generally profuse and is soon followed by death. Pulmonary apoplexy diffused in character may occur from a large infarction, but more frequently from certain pathological degenerative changes in the walls of the arteries.

In either of the above conditions physical examination will develop unmistakably symptoms which will reveal the true nature of the cause. In the case which is before you we have to differentiate between hæmatemesis where the blood exudes from the mucous membrane of the stomach or from the bronchial tubes when it is termed bronchorrhagia or hæmoptysis. In hæmatemesis the patient will experience nausea and oppression; and distention in the epigastrium is felt. The blood is vomited up, dark colored, coagulated and often mixed with food, and acid in its reaction. Hæmoptysis is accompanied or preceded by a sense of constriction across the chest, dyspnœa and cough. The cough is often associated with or follows the expulsion of blood. The blood which is expelled in bronchial hemorrhage differs in character from that coming from the stomach, being bright red, frothy and alkaline in reaction. I have submitted a specimen of this blood to microscopical examination without finding anything abnormal. Normal corpuscles, epithelium mucus and coagula were present only.

The patient has many of the symptoms of hemmorrhage from the bronchial tubes. The sense of "trickling" behind the sternum prior to the attack, blood a bright red color, cough accompanying the discharge of blood.

You will remember that in the bronchial mucous membrane throughout the whole course, through the ramifications of the bronchial tubes there is a circular fasciculi of muscular fibres just beneath the mucous membrane with a unmber of longitudinal elastic fibres. The character of the bronchi abruptly changes in the tubes less than $\frac{1}{50}$ inch in diameter. They lose their cartilagenous rings. The mucous membrane cannot be dissected from the muscular fibres, the latter losing their anatomical identity at the opening into the air cells. The mucous membrane being covered by epithelium of ciliated variety with movements from within outwards—the air cells proper having epithelium of the pavement variety.

The blood supply to the air cells is from blood conveyed by the pulmonary artery. This is an anatomical fact of pathological significance and explains why inflammatory conditions of the bronchial tubes do not extend into the parenchyma of the lungs, and *vice versa*.

Auscultation in this case reveals a few large and small moist *rales* indicating an unusual quantity of fluid in the bronchial tubes.

Percussion gives negative results. This is undoubtedly a case of bronchial hemorrhage.

The treatment in a great measure is necessarily based upon the cause. Hemorrhage may be due to engorgement caused by either over-action of the heart or to cardiac weakness in the one instance giving rise to *active* hyperæmia—in the other *passive*. It may also be induced by irritating substances such as gaseous vapors and the rarefied air of high altitudes. There is a strong disposition to bronchial hemor-

*A clinical lecture, reported by T. S. Hough.

†Professor of Physiology and Histology, Michigan College of Medicine.

rhage in those patients in which phthisis is developed. Finally the two most frequent causes are the over-distention of bronchial mucous membrane and weakness of the walls of capillaries of the bronchial mucous membrane. The latter of these two conditions may be either acquired or hereditary.

The period of greatest tendency occurs between the ages of 14 and 30 years.

This patient gives no history of phthisis in his ancestry. He is a stone cutter by trade, no doubt inhaling small particles of stone while engaged at his work. If it were convenient for him to change his avocation to some employment at which he would not be subjected to irritating inhalations the success of treatment would be more assured.

Medicinally we say we have several remedies more or less efficacious, namely ergot, turpentine, gallic acid, matico, opium, ipecac, chloride of sodium; but we will give this man a combination of fluid extract of ergot in drachm doses four times per day with ten drop doses of tincture opii deod. and turpentine, counter-irritation to chest. Watch his course and note results.

Case No. 2.—The patient, Mr. C., is a native of the Green Isle, a festive son of Erin, and has resided in this country 15 years. He has performed the office of sexton of Trinity Church for the last six years.

He enjoyed comparatively good health until two months ago, when he was taken with a cold, as he expresses it, and which has settled in his chest. He is, as you observe, a man past the meridian of life, has always enjoyed good health, never having suffered from rheumatism, any of the fevers, or pneumonia. He has been a moderate drinker for a long time.

He complains of great difficulty of breathing, dyspnœa and orthopnœa; cannot sleep at night in a recumbent position; his tongue is covered with a heavy coating of dead epithelium; his temperature is 99° F., respiration 28 per minute, pulse 90.

From a superficial examination of the chest I find the left side more prominent than the right, chiefly over the præcordial region. Also a deficiency of this side in the ordinary elevations and depressions.

On auscultation I find both lungs to be performing their function in a normal manner, except that the movements of respiration are accelerated, while at the lower part of the left lung I find the normal vesicular murmur to be entirely absent. On examining cardiac region I find the second sound a little more distinct than normal.

The area of cardiac dullness is very much enlarged.

By palpation I find the impulse of the apex against the walls of the chest, one inch below and about an inch and a half to the left of the normal position of the apex beat.

Percussion reveals dullness from 1 inch to 1½ inch to the left and two inches below normal area. Percussing upwards we elicit abnormal sounds extending as high as the second rib. From the developments revealed by our means of diagnosis which we have just used we expect to find either endocarditis, pericarditis, pleurisy, pneumo-thorax or cardiac hypertrophy. The abnormal area of cardiac hypertrophy or dilation of right ventricle very closely resembles that produced by peri-cardial effusion, and it is very difficult, especially to the inexperienced to differentiate between them. There is one point which is worthy of remembrance; that is in hypertrophy of right heart the præcordial dulness never extends to the left beyond the normal apex beat. In left cardiac hypertrophy the apex beat is carried downwards and to the left. The force of the apex beat is greatly increased in hypertrophy of the left ventricle. Pericardial friction sounds, if they are present may be diagnosed from pleuritic sounds by having patient suspend respiration for a short period. If the friction sound is caused by the grating of pericardial surfaces they will not be suspended during the momentary suspension of respiration—if pleuritic *they will be*. Pericardial friction murmurs may be distinguished from endocardial murmurs, 1st, by their superficial character, 2nd, their limited area of diffusion. The maximum of intensity of pericardial friction murmur being over the right ventricle in the region of the junction of the 4th rib with sternum while endocardial murmurs are audible beyond the pericardial limits to right and left, and upwards along the course of the vessels and sometimes in the back. In the latter condition the position of patient does not affect the murmur. Pericardial sounds may be increased or diminished by inclining patient forwards or backwards in this manner. Endocardial friction murmurs precede, take the place of, or follow the heart sounds; pericardial are more rubbing, grating or creaking in their character; but there is one particular point you must bear in mind and that is that you will not be able to get these friction sounds in all stages of pericarditis as in the case before you.

The case has passed the acute stage, there is a large amount of effusion within the pericardium. It may be sero albuminous, sero-fibrinous, hemorrhagic or purulent. In the majority of cases it is sero-fibrinous, as we have reason to believe it is in this case. The amount of fluid may vary from the normal amount of from one to two drachms to ounces, and in some cases pints. The pericardium is a fibro-serous membrane. The fibrous layer is a strong and thick membrane surrounding the great vessels which have their origin from the

base of the heart; the serous layer invests the heart proper and is reflected on the inner side of pericardium.

You will remember the action and location of this membrane tbose of you who were present at my vivisection a few weeks ago, demonstrating the movement of some of the thoracic organs.

Notwithstanding the fact that we cannot detect the pericardial friction sounds, we have evidence enough to warrant us in stating that we have in tbis case an effusion into the pericardium.

By percussion we find that the normal area of cardiac dullness is increased in every direction, especially vertically and downwards, corresponding to tbe pyramidal form of the pericardial sac, he complains of orthopnœa and dyspnœa, the former is a valuable subjective symptom in connection with the other symptoms.

By palpitation we find the apex impulse to the left and downwards beyond the normal area, and quite distinct. In simple pericardial effusion the apex beat is indistinct. From our hurried superficial examination we diagnose this case as one of pericardial effusion with hypertrophy of left ventricle. Caused by chronic alcoholism. We will prescribe rest, if the pulse manifests dicrotism we will give stimulants directly, small doses of opium to allay any pain and allay irritation, nutritious and easily digested food. Our efforts also should be directed towards the absorption or removal of the fluid. We will prescribe calcium iodide in ten grain doses 3 times a day, keeping tbe eliminative organs in a healthy condition, by pursuing this plan of treatment we will expect to restore this man ultimately to health.

A STUDY IN HISTOLOGY.*

BY H. B. SHANK, M. D., LANSING, MICH.

I am aware that the grounds taken in this paper are not only new, but not fully proven to be true by any research yet made.

We refer to a long cherished belief that the red corpuscles of blood in a very large majority of the mamalia are each an individual magnet endowed with positive and negative magnetic polarity.

My mode of reasoning compels me to accept this hypothesis with the same confidence that I do that of magnetism in the operation of tbe mariner's compass.

When we see the positive and negative poles of two magnetic needles approach each other, and if free to move, attach and adhere together, we have no doubt but that it is magnectic attraction that produces this motion in matter.

If we were ignorant of the laws that govern magnetic bodies, we would be forced to the conclusion that some immutable law governed their behavior.

Why not, then, look for an ever acting and unchanging force that brings tbe red blood-disks together and always in tbe same order?

Under tbe microscope the movements of the blood-disks are observed to be as uniformly obedient to their superintending agencies as is the needle of the mariner's compass, or the earth in its rotations and revolutions, and it is manifest tbat the one is no more the result of chance tban tbe other.

If the red disks adhered to each otber edge to edge or edge to side, and otbers to these in a similar manner, forming irregular masses, they would not suggest the thought that their motions were controlled by fixed laws.

Such, however, is not the case. They come together only in one way. They always form rouleaux when in their normal or living condition.

Artificial bodies shaped like red corpuscles with magnets, passed through the centre of each, will, wben suspended in a fluid of tbeir own specific gravity, come together and form just such rouleaux as do the red blood-disks.

Knowing the law that brings these artificial disks together, may we not suspect that the same or a similar force directs the natural ones?

All the iron in the blood is treasured up in these little bodies.

Why, then may they not be magnets? If magnets, they must have positive and negative polarity, and their opposite poles would mutually attract each other, and if not prevented would come together.

Now if the opposite poles of the blood disks should attract each other witb force sufficient to bring them together, would they not become double concave disks?

What else is a red corpuscle of blood? As the red blood corpuscle is the only one in the body which contains iron, so it is the only one that is double concave.

It is said that not all red corpuscles are double concave. The answer to this is that none of this class ever enter into the formation of rouleaux, because they are not magnets and hence have no magnetic polarity.

Probably the red disks which are not double concave and do not form rouleaux contain a different salt of iron from that in the double concave disk.

Expose one of these rouleaux to the action of oxygen or carbonic gas, or any other chemical reagent, and these little bodies will relax their hold upon each other, assume the globular form, and ever after refuse to enter into their former relation with each other.

Why this refusal? It is, in my opinion, because the salt of iron which rendered them

* Read before the Lansing Medical Society, March 15, 1889.

magnetic has been changed to another salt non-magnetic, and for this reason they are now round instead of double concave.

Admit, for the time, the truth of the above proposition, and let us look at the effect of this magnetic force in the red disks as we see it manifested in the construction of the only tissue of which they (red disks) are constituents.

We refer to the striped muscular tissue. By the aid of the microscope we find that a fibre of striped muscle has very much the appearance of a rouleaux of blood corpuscles, both showing the transverse stripes, while the former have their stripes nearer together than the latter.

If both of these bodies are constructed in the same manner, we observe that the disks in muscular fibre must be drawn more closely together as the stripes are not so far apart as in the rouleaux and the transverse diameter of the muscular fibre is somewhat greater than that of the rouleaux.

This is just what we would expect, for is it not true that the greater the number of magnetic corpuscles in a rouleaux the shorter it will be in proportion to the whole number which enter into its construction?

Will not ten of these little magnets acting upon each other exert a greater force and overcome more resistance than will two or three of them, and if this be true would we not expect to find just what we do, that because of this increased force the corpuscles of muscular fibre are thinner and their transverse diameter is increased.

These constituent units of muscle become thinner and broader when the motor nerves are excited that lead to them and as a result of this phenomena we get muscular contractions.

So too, will rouleaux of red corpuscles contract when exposed to a slight current of electricity.

The will power sent to a muscle causing its contraction, is, probably, only an adequate current of electricity sent along the communicating nerve.

Again the coloring matter of muscular tissue is identical with that of red blood corpuscles which is another reason why we believe its structure is built up of the red disks.

The converse of this proposition is equally true, as this blood color is absent in all tissues of the body except muscular we conclude that the latter tissue is the only one into which it enters as a fixture.

If these red magnets only subserve the function of voluntary muscular contraction, we are at a loss to see how their absence in other tissues of the body is not for the best.

Hence we infer that the chief demand for red corpuscles is to make up and mend up the great locomotive machinery of animal creation —our muscular system.

In this paper we have only considered the striated or striped muscles, as they were inseparably connected with this theory of red blood corpuscles, and are intimately connected with the vaso-motor system.

The smooth, non striated muscles are pale or amber-colored, and are in no way connected with voluntary motion, and are not connected with the voluntary system, and they could not assist in voluntary motion if they were so connected, as they are not made up of the necessary material to render them susceptible of exercising such function.

Thus far we have only attempted to give an outline of our own view, leaving the blank spaces to be supplied by others more competent to perform the work.

If they are found true they may lead to a solution of the hidden mysteries of histology and histochemistry.

If they are untrue they will be buried with past vagaries, and science will continue its triumphant march in the great unseen future as it has in the historic past.

If the above theory is true, its corollary would be that the transverse diameter of the muscular fibre of any particular animal must correspond with the same diameter of a rouleaux from its own blood.

NYSTAGMUS.

A CLINICAL LECTURE.

BY L. E. MAIRE, M. D.*

The case before us to-day, gentlemen, is one of much interest, and is known as Nystagmus, and, as you see, consists of a peculiar oscillating movement of both eyes. You will also notice this depression in the frontal bone over the left orbit, which was caused, as the patient states, by a gunshot wound received in the late war; he also states that both his eyes were free from all trouble prior to receiving this wound, that he subsequently had as a result of the wound severe inflammation of both eyes, and when he finally recovered he noticed for the first time the oscillating movement of the eyes. You will also notice the fact of convergent squint of both eyes, more especially of the left; this is frequently seen in nystagmus, and is no doubt due largely to the fact that many patients suffering from this disease are also amblyopic, and are unable to properly fix the eyes, and consequently have no binocular vision. Now, many of these cases are accompanied by error of refraction, and so we have taken him

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into the refraction room and tested his vision very carefully, and I find R. E. V: $\frac{20}{200}$. L. E. V: $\frac{20}{200}$, accepts no glass, so he is put under the use of atropia to properly test his refraction and paralyze his accomodation, with the following result: R. E. V: $\frac{20}{200}$ W—2Ds = $\frac{20}{100}$. R. No. $1^{\frac{3}{4}}$ at 6′ to 12.′ L. E. V: $\frac{20}{200}$. W—2ds = $\frac{20}{200}$. Reads No. $1^{\frac{3}{4}}$ at 6′ to 10.′ So that we find that he is also myopic and that with the above glasses his vision is increased four fold; with their improvement, he expresses himself well satisfied.

An interesting fact in connection with this case is that a nine and ten degree prism base will control to a considerable degree these jerking movements and keep the eye perfectly quiet for near vision.

Case 2.—This case illustrates nystagmus due to an entirely different cause. This young lady, age twenty-two, has been afflicted with pyramidal cataract since birth. You see upon examination two white spots on the anterior capsule of each lens that have a peculiar raised appearance, this condition is known as pyramidal cataract, and is often the cause of these oscillating movements. There is an additional interest attached to this case, as revealed by the ophthalmoscope. It is a condition known as the remains of pupillary membrane. Several bands of the membrane can be seen originating from the periphery of the iris to the center of the cataract. Now, it might be inferred that possibly these bands may be the remains of old adhesions of the iris due to inflammations, but this is shown not to be the case by the fact that the pupillary border of each iris dilates and contracts symetrically, which would not be the case if these bands were of inflammatory origin; also, the ophthalmoscope, with a + 23, D, shows these fibrillæ to have their origin anterior to the iris.

Nystagmus is invariably accompanied by some defect in vision, either central opacity of cornea, congenital cataract, high degree of hyperopia or myopia, choroido-retinitis or disease of optic nerve, choroiditis effecting or in the immediate neighborhood of the maculæ and is frequently seen in Albinoes and coal-miners. Certain forms of cerebral and spinal diseases, such as disseminated sclerosis and tumors of the brain are causative.

Treatment is almost nil. By careful adjustment of glasses to improve vision, tenotomy of internal recti muscles in cases of convergent squint, the persistent use of prisms for gymnastic exercise to steady and increase the power of the various muscles and tonics where indicated, and change of occupation is about all that can be done, always bearing in mind to remove if possible the cause.

INFLUENCE OF FORM OF ADMINISTRATION UPON THE ACTION OF REMEDIES.

BY HERBERT C. HARRIS, M. D.

Iodide of potassium, in five-grain doses, given in a half-ounce of water a half-hour before meals, will relieve bronchitis in four days, when the same dose in two ounces of water taken after meals fails for weeks to give relief.

Iron given in an effervescent mixture will often rapidly show its good effect in anæmia, when it does no good, or positively disagrees, in other forms.

Morphine, which in aqueous solution fails to relieve cough, will do so promptly if dissolved in a small amount of viscid menstruum.

Sulphate of magnesia—six or eight drachms, given in just as much hot water as will serve to dissolve it, and taken early in the morning, with subsequent deprivation of drinks—is of undoubted value in relieving pleural effusion. When given freely diluted it exercises no good effect whatever.

Nux vomica, digitalis, belladonna (and probably other drugs) are more effective when given by mixing the tincture, just before administration, with a little water, than when combined in mixtures in which they often are in contact with alkaline salts for days.

SWEET SPIRITS OF NITRE A SOLVENT OF SALICYLIC ACID.

As the administration of salicylic acid has become so extensive, and as a good solvent is desirable, I wish to make known, through the AGE, that spiritus nitrici dulcis (sweet spirits of nitre) is the best solvent. I have been prescribing it nearly four years in the treatment of malarial fever with uniform success, without the use of quinia. I employ this formula:

℞ Salicylic acid, ʒ j.
Sweet spts. nitre, ℥ iv.

Mix. Sig.: One teaspoonful every two hours for children; two to four teaspoonfuls for adults.

It can be diluted with water if necessary, and can be combined with veratrum, gelsemium, aconite, etc. One ounce of nitre will dissolve sixteen grains of the pure acid, and makes a clear solution. If that quantity of acid is increased, on the addition of water the acid is precipitated; the mixture becomes semi-solid. Add a little more of the nitre and it becomes a clear solution again. I will add that in the treatment of intermittent and remittent fevers salicylic acid is a valuable remedy, generally relieving those diseases within forty-eight hours.

Correspondence.

RETENTION OF URINE—QUERY?—WHAT WAS THE PROGNOSIS AND PROPER TREATMENT?

Given a case: Man, 55 years of age, somewhat given to strangury. You find him suffering intensely from a filled bladder. His shirt and bed very bloody, and clotted blood filling urethra. You introduce flexible catheter and find great tenderness, and withdraw the catheter after several ineffectual efforts to reach the bladder without using force.

I withdrew the flexible catheter, and with a small syringe threw into the urethra normal liquor belladonna 10 drops, cold water half an ounce (had no cocaine in reach). I threw into the rectum a pint or more of very warm water.

After waiting a few moments I introduced silver catheter, No. 8, without pain, and as it passed under pubic arch of its own motion, it passed to the left of the urethra for a distance of an inch and a half or two inches.

Withdrawing slightly, I succeeded in entering the bladder, and a few drops of urine, perhaps half a teaspoonful, shot out with much force. After working for some minutes I withdrew it and found it filled its whole length with clotted blood. This I cleaned out and introduced again, having to use some care to keep it from turning to the left again, and entered the bladder easily, but, as before, could get no urine to pass. I withdrew it again, injected a little more of the belladonna, repeated the rectal injection, and after fifteen minutes, got my patient on his feet and directed him to make an effort to urinate, when he passed a full half pint of very bloody water. Gave him ¼ gr. sulph. morphia, and he slept four hours quietly.

Two physicians had preceded me in the case, which had lasted eight days. The first made two ineffectual efforts to introduce a catheter (a flexible one, I think). The second used an unusually large silver catheter, no number on it, but a full quarter of an inch in diameter. After great pain and profuse hemorrhage, entered the bladder and drew the water, and the second day after drew it again, with much pain and bleeding.

In the next two days the patient introduced it himself twice and made several failures later, and then I was summoned, without knowing anything of the history. Supposing I was to have charge of the case, I was sending to my office, several miles distant, for some pepsin. I was going to attempt to throw an acidulated sol. of pepsin into the urethra and neck of the bladder to attempt to dissolve the clots, when I was informed that the second physician was expected that morning, and I withdrew from the case. Patient died Tuesday morning, and I left him Saturday morning before. Will state that the first physician is an old and competent man. The second I do not know, only that he is a young man.

I will also add that three years ago, in a similar attack to this at the start, I was called and had no difficulty in passing catheter, and patient made a prompt recovery, after the ordinary treatment. Now, on Saturday morning what was the prognosis under any kind of treatment, and what kind of treatment.

Fraternally,

A. G. CHASE.

MILLWOOD, KANSAS.

A CASE OF PLACENTA PRÆVIA.

On the evening of Jan. 22d, I was sent for in great haste to attend Mrs. W., residing five miles from town. I arrived there at 9:30, found her having slight labor pains and a great deal of hemorrhage. She claimed to be eight months pregnant, and was very weak from the hemorrhage, which was of a remittent character.

She objected to an examination, and it was some time before I succeed in making one; found the os just slightly dilated; but the hemorrhage becoming more and more profuse, I gave her a small dose of ergot. After a few more pains I made another examination, and could introduce enough of my finger to determine that the placenta was attached over the os. In the meantime the hemorrhage becoming more severe, I proceeded to tampon the vagina by strips of a sheet, and gave another dose of ergot at 12:30.

At 1 o'clock the tampon gave way with a fresh rush of blood. I introduced my hand at once into the vagina and called for a new tampon. As there was yet little dilatation I again tamponed with more care and the flow ceased, the pains being quite feeble, and I gave more ergot.

At 2 o'clock the flow began once more. I removed the tampon and found the uterus dilated as large as a dollar, and forcibly dilated it enough to tear away the adhering portion of the placenta, and ruptured the membrane. The head at once followed my hand, the flow ceased and labor terminated, she being delivered of a still born child at about 4 o'clock. The flow was then easily controlled by ergot and the woman made an excellent recovery.

S. E. NEIHARDT, M. D.

SOUTH BOARDMAN, MICH.

The Medical Age.

A SEMI-MONTHLY REVIEW OF MEDICINE.

B W. PALMER A. M., M. D., Editor.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

DETROIT, MICH., APR. 10, 1889.

Editorial.

ON THE TREATMENT OF THE MORPHINE HABIT.

Instances are very few where the confirmed victim of the morphine habit by will power alone has succeeded in emancipating himself from his bondage. The drunkard has now and then forsaken his cups, and the tobacco victim his pipe or cigar, never again resuming the baneful habit; and all by the strength of a will which, once asserting itself, is never again overcome, despite temptations and the intense craving for an accustomed stimulus. But the unhappy morphinist, when once brought to view with horror the abyss of ruin in which he is sinking, is not likely to escape without extraneous aid. This is due to three reasons: First, the strength of the passion for the narcotic, which for a time becomes increasingly imperious every day; second, the demoralized condition of the individual, whose finer sensibilities and whose better nature have been impaired by the long continued action of the poison on the cells of the cerebral cortex; third, the feeble tension of the will power, or, more properly speaking, of those higher energies which represent action inspired by superior motives. Hence, the morphiomaniac can seldom hold out long in the struggle against temptation, and he is in need of the help which the co operation of friends and medical assistants can give him. There will be a time, even, when restraint will be necessary, as during the first fortnight of the withdrawal, and hence it is not only desirable, but practically essential, that the morphine habitué who would be cured should surrender for a time his liberty to the guardianship and care of persons thoroughly competent to treat his disease; and it is only within the walls of a properly equipped institute that the withdrawal treatment can be properly carried out.

One disadvantage of the gradual method (alluded to by ERLENMEYER) is the long time during which the patient must remain in the institute. The principle of the treatment being "progressively to diminish the daily quantity of morphine injected, to act slowly, and sometimes to decrease only by several milligrammes a day," months are often required to thoroughly wean the patient from morphine. The treatment by the gradual method is therefore both expensive and painful; the sum of the patient's sufferings is spread over weeks, or even months, instead of being concentrated into a few days, after which the distress is principally over, as in ERLENMEYER'S rapid method.

It is needless to say that the gradual or "tapering off" method cannot be effectively carried out at home, or in a private boarding house. No patient was ever yet weaned from morphine in that way; at least, no inveterate case was ever so cured.

One great obstacle is the facility with which the patient can cheat the physician and obtain clandestively his supply of morphine, and this difficulty, as ERLENMEYER says, even attends the attempt to carry out the gradual method of withdrawal in a private institute.

As an illustration of ERLENMEYER'S manner of withdrawal—his so-called rapid method—we will take a case which he has reported, viz., that of a physician aged twenty-nine years, who had been made a morphinist by repeated attacks of supra-orbital neuralgia. This gentleman had been using one gramme (fifteen grains) of morphine daily subcutaneously.

On the first day of the treatment, the supply of morphine was reduced to 0.33 (five grains). On the second day, the supply was still further cut down to 0.12 (two grains). On the third day, it was reduced to 0.09 (one and one half grains). On the fourth day, the morphine was reduced to 0.06 (one grain). This was all the morphine that was given hypodermically. A full dose of laudanum (25 drops) was administered on the sixth day on account of diarrhœa. Alcoholic stimulants, bromides, chloral, concentrated broths, milk, etc., were given according to indication; in ten days time the patient was weaned.

A patient that has been using daily quantities of 0.5 to 0.6 (seven and one-half to nine grains), is on the first day of the treatment cut down to two decigrammes (three grains). The second day the morphine is reduced to one decigramme (one and one-half grains). On the third day the same amount is given. On the fourth day 0.05 (three-fourths of a grain) suffices. On the fifth day, there is necessity for 0.06 (one grain). On the sixth day 0.03 (one half grain) is administered; on the seventh day 0.01 (one-sixth grain), after this, the morphine is discontinued altogether. The supervention of diarrhœa requires an occasional dose of laudanum.

Such, in brief, is ERLENMEYER'S method of treatment which is the result of fifteen years experience and study, and which under the

supervision of this German authority and in his institute has been eminently successful.

SALPINGITIS AND ITS RELATION TO PERI-UTERINE INFLAMMATIONS.

It is now generally agreed among gynecologists that perimetritis seldom or never takes its origin in the cellular tissue adjacent to the uterus. Pelvic cellulitis and parametritis as well as *perimetritis* mean simply salpingitis and its consequences. The inflammation starts in the tubes and spreads to the peritoneum, the ovaries, the broad ligaments, etc. The indurated masses found in connection with the uterus, sometimes appearing above the pubes and involving the abdominal walls (the *plastron* of the French surgeons) are the products of an inflammation which has overpassed its original bounds, and has matted together in a lymphoid exudation, tubes, ovaries and adjacent viscera.

This view was first advocated by BERNATZ, and has recently found earnest defenders in POLK, Medical Record, vol. xxx, p. 309, and TERRILLON, Journal de Médecine de Paris, March 3, 1889.

POLK reports sixteen cases which came under his observation, where the diagnosis was established by laparotomy. In these cases, the symptoms and signs present were those of "pelvic cellulitis," and "pelvic peritonitis," but abdominal section showed salpingitis, perioviaritis and peritonitis.

TERRILLON in the Journal de Médecine reports six cases; the results of laparotomy were the same as those recorded by DR. POLK. He believes that the Fallopian tube and ovary are the origin of those affections known under the name of parametritis, and "pelvic peritonitis, which is secondary to disease of these organs, constitutes a tardy, though from a clinical point of view, the most important phenomena of the salpingo-ovaritis." Phlegmon of the broad ligaments has also disappeared from the scene, being "a consecutive phenomenon" of the disease in question. On opening these abscesses by the ordinary methods, you get no idea as to their origin and exact seat; laparotomy shows the tube or ovary on the side of the phlegmon or abscess to be full of pus, and agglutinated to the walls of the pelvis and the abdominal wall. As to the etiology of salpingitis and its sequelæ, all late observations show that the morbid process starts in the lining membrane of the uterus, not in the peritoneum, or periuterine cellular tissue, "every patient," says POLK,* who has an endometritis, no matter how produced, has taken the first step towards a salpingitis and its results."

Death is an exceptional termination, but "may be expected whenever evident septicæmia is at the bottom of the inflammation, or whenever a depraved constitutional condition is present, because in such a presence, acute general peritonitis is apt to develop." Mild cases get well by resolution; cases that go on to suppuration may recover by discharge of pus through the rectum, vagina or abdominal walls. The tubes may escape any permanent injury or they may be "occluded, thickened, distorted, dilated," and bound to the adjacent viscera or the posterior face of the broad ligaments. The ovary may be unaffected or it may be choked out by new tissue and undergo atrophy; the uterus may be displaced in any direction and bound down by adhesions; the ligaments may be "infiltrated, distorted and shrunken." The rectum may be constricted by means of exudation and new tissue.

As for treatment, laparotomy is not counselled as long as there is any reasonable hope of recovery by natural means. "We should never" says POLK, "operate in acute cases unless to cut short a peritonitis that threatens to become general; but in chronic cases, whenever other means have been faithfully tried and found wanting, every patient should be offered that measure of relief that surely can be gotten from abdominal section."

It cannot be denied that the results of laparotomy in the treatment of these periuterine inflammations have been very favorable.

* Loc cit.

CHRISTIAN SCIENCE AND MENTAL THERAPEUTICS.

One of the facts recently brought out in the discussion before the legislative committee of the Massachusetts "general court," relative to the passage of a bill restricting the practice of medicine in Massachusetts to only qualified and diplomated practitioners (the bill, by the way, was reported upon adversely by the committee), was that large numbers of respectable and intelligent, indeed "highly cultured" people in Boston and other New England cities consult and employ "Christian Scientists" when their health is in any way deranged. "This may be true of Boston where this latest craze still has the flavor of novelty and the odor of sanctity; in certain other cities of that state (as we happen to know), where a few years ago this delusion had many adherents, there is now not a practitioner of the "Eddy School" able to get a living by the exercise of this kind of therapeutics. Some of these practitioners have become itinerants, going about from place to place, and meeting some success in new localities, others have ceased trying to obtain a living from "christian science," which they now only cultivate to gratify some of their friends.

Doubtless Boston, which has for years been the hot-bed of quackery, will for some time to come cherish christian science along with clairvoyance and other humbugs. The "intelligent and cultured" often show a sad want of intelligence and culture when it is a matter of choosing their medical practitioners; they are almost certain, however, to call in the well educated and skillful physician when serious disease presents itself.

There is no error but contains some truth, which gives it all its vitality, and "christian science" has a certain sound basis in the undeniable facts of mental therapeutics. Intense occupation of the mind with some subject of interest will drive away a headache; the lovesick swain will recover his appetite and his sleep if "Chloe" will only relent; the reward of $10,000 damages has helped put many a victim of "railway spine" on his feet; hysteria and functional paralysis and neuralgia has often proved tributary to hypnotic suggestion, and a severe fright has sometimes cured nervous aphonia.

But the christian scientist, not being content with taking his stand on such facts as these, and affirming the power of mind over bodily states within a certain limited range, prates a great deal of nonsense about the non-existence of matter, the non-reality of disease and pain, self-identification with the Divine reality which permits no imperfection, etc., which, if any of the readers of the MEDICAL AGE desire to know more about, we would refer them to some of the numerous journals published by that sect, and especially to the author of the system, MRS. MARY BAKER GLOVER EDDY, who has lately been enlightening the elite of New York on the Divine law of Cure.

STUDIES IN THERAPEUTICS HEART TONICS.

Modern research has done so much to enrich the materia medica that we can not question its utility or the great importance of its revelations. One discovery stimulates another until, in the selection of remedies to meet the indications present in certain diseases, the physician has not infrequently an embarrassment of riches.

It sometimes happens that clinical experience does not justify the claims made for a newly discovered remedy, and when this is fully proven, the sooner it is discarded the better for the interests of medicine, the physician and the patient.

The later papers recording physicians' experience with various heart tonics as substitutes for digitalis would seem to indicate that none of them fulfill the indications so perfectly as digitalis itself.

Thus strophanthus, of which so much was expected, has not fulfilled its promise, and it and other new heart tonics are only found of service when digitalis can not be taken.

In an article contributed to the British Medical Journal, March 16, 1889, the limitations of strophanthus and the application of heart tonics are set forth:

Since the publication of PROF FRASER'S paper on "Strophanthus" at the Cardiff meeting of the British Medical Association in 1885, sufficient time has been given for a comparison of the effects of the new remedy with those of other cardiac tonics. The subject is one which interests a wide circle in the profession, as is evidenced by the large number of communications which have appeared regarding it. Although it has been abundantly shown that strophanthus is a drug of value in many cases in which a cardiac tonic is indicated, yet the opinion has also been frequently expressed that it is less successful and less trustworthy than digitalis. Many of the failures have been due, doubtless, to the use of tinctures made from unripe or otherwise faulty seeds, but now, when good preparations are readily obtainable, the same opinions continue to be expressed. The disappointment is owing probably to too high expectations being formed of the efficacy of the drug in disease, and probably, also, to its use in unsuitable cases.

It has been claimed for strophanthus that it acts more promptly and more certainly than digitalis, and that it differs from the latter in not causing contraction of arteries. This last opinion was derived from experiments on frogs, which have been confirmed by LANGGAARD; but PHILLIPS, THOMPSON, and LANGGAARD himself have shown that in the case of mammalia contraction of vessels is caused just as with other members of the group.

To come to the cases in which cardiac tonics are specially of benefit; they, are, briefly, those in which, owing to cardiac weakness, the arteries are not well filled while the veins become overfilled, and in consequence of the back pressure venous stasis with dropsy results. The administration of any member of the digitalis group strengthens the heart and regulates the distribution of blood, the arteries become full, the veins are relieved, the arterial pressure is raised, and the serous exudation is reabsorbed in the blood-vessels. This makes the blood too watery, and the excess of water is got rid of by the kidneys. Hence the increased diuresis ceases as soon as the dropsy has passed off. There is no direct action on the secreting renal epithelium, the increased flow of urine being simply the result of the altered conditions in the vascular system.

In weakness and functional irregularity of the heart, and in emphysema with relative insufficiency, a cardiac tonic may also be reasonably expected to do good.

From what has been said we cannot hope that digitalis will act well as a diuretic in cases where the blood-pressure is already normal or above normal, and the arteries well filled, as in many cases of chronic nephritis, in pleurisy, and local exudations. Its use in such cases will only be attended with disappointing results; but in cirrhotic kidney, with consecutive dilatation and weakness of the heart, its administration is often of great service.

The advantages of strophanthus are summed up in the facts that it acts more promptly than digitalis as a rule, and has no cumulative action, while it shares with digitalis the disadvantages of causing disturbances of the alimentary canal, and local irritation when administered hypodermically.

Further investigation of the many plants having muscle-poisons for their active principles may provide us at any time with a more satisfactory substitute for digitalis.

THE INUTILITY OF ELECTRICITY AS A THERAPEUTIC AGENT.

Too much has been claimed for electricity as a remedial agent in disease. While a most impressive mode of treatment it is rarely properly applied, and the results obtained from it are for the most part problematical.

In view of the extent to which electricity is now employed by physicians, these statements may seem unjustified by the facts, but they are we believe in accordance with the opinion of almost all general practitioners who have employed this much vaunted agent, and will even be borne out by the experience of most specialists who are more familiar with its proper method of use.

In confirmation of this view of the inutility of electricity in therapeutics, we will cite the recently expressed opinions of two authorities who have given much attention to the study of this agent.

In an article entitled "Electricity as a Therapeutic Agent," M. Allen Starr, M. D., Ph. D., Professor of Diseases of the Mind and Nervous System in the College of Physicians and Surgeons New York, Philadelphia Medical News, March 30, 1889, thus presents his conclusions from his study of this subject:

1. Static electricity offers nothing beyond an interrupted galvanic current, and fails to furnish those effects which are most desirable in the treatment of disease.

2. A constant galvanic current can produce chemical changes which aid nutrition, or destroy tissue according to the strength employed.

3. A constant galvanic current can transfer medicine into the body from without.

4. An interrupted galvanic current, or a faradic current, can excite various organs to activity, thereby aiding their nutrition.

5. It is questionable whether the pathological state causing organic diseases can be in any way influenced by electricity.

6. If functional diseases are benefited, it is in an uncertain manner; it being undecided whether it is by influencing the molecular condition, the chemical changes, the circulation, or the electrical state of the organs affected—or by the state of mental expectation induced. The agent is therefore used empirically, and the physiological indications for it are as yet uncertain. As a therapeutic agent its use is very limited and carefully balanced scientific observations are still needed to establish its proper sphere.

I cannot close without stating that after the constant use of electrical treatment for the past six years in dispensary and in private practice. I have been disappointed in the results obtained. And I cannot ascribe this lack of results to any defect in the applications, for they have been made with care, with the best of apparatus, and with exact galvanometric measurements, according to the methods described by such authorities as Erb, De Watteville, Benedict and Beard. My experience coincides with that of Gower's, that the therapeutic effects of electrical applications have been exaggerated and are really very limited and quite uncertain.

R. W. Amidon, M. D., in a letter to the New York Medical Record, March 30, 1889, entitled "On the Uses of Electricity in Medicine," says:

That a reaction from the old-time credulity of the profession in regard to electro-therapeutics is taking place, the discussion at the last meeting of the New York Academy of Medicine shows.

The enthusiasm which formerly swayed the multitude was imported from France and Germany, and now the ebb of the tide which lays bare the foundation-stones of electro-therapeutics, one of the gentlemen discussing the subject the other night would have us believe, has started from England.

Dr. Starr credited Gowers with being the first to express in print, in his very recent book on nervous diseases, ultra-conservative views on electro-therapeutics. As a firm believer in American common sense, I protest at any such statement. That some of us eagerly swallowed the Continental bait ten or twelve years ago, I must admit, but that it has taken us twelve years to find out we were sold, I deny. Some of us at once set ourselves to personally and experimentally prove the correctness of the stupendous claims made by Continental electro-therapeutists, with the prompt result of finding most of them a lot of bubbles.

I will here make a statement which I have no fear anyone will honestly contradict: That

ninety per cent. of electrical applications are made either through ignorance or avarice; the latter motive being by far the most common. There is no other way—unless it be the hypodermatic treatment of syphilis—whereby a patient can be induced to come to a doctor's office so often, so regularly, and for so long a time as to undergo a thorough "course of electricity." This knavery and humbuggery is rampant all over our land, and in any other profession or business than medicine would be branded as it deserves.

The indications for the use of electricity are just as plain and concise as are those of opium, aloes, or digitalis, and at some future time I should be pleased to present them, but the limits of a letter are already over-stepped. Let me add to my readers these words of advice: Don't use electricity without knowing why you use it; don't use electricity as a placebo, it takes too much time and is too expensive; and last, but by no means least, don't use electricity simply to make money; it is unprofessional, and brings medicine into disrepute.

The AGE would be interested in having its subscribers communicate for publication their experience in the use of electricity, and their opinion of its utility.

HOW TO IMPROVE YOUR POSITION SCIENTIFICALLY, SOCIALLY AND PECUNIARILY —JOIN THE STATE MEDICAL SOCIETY.

That in union there is strength, and that by association work may be accomplished which to the individual is impossible, is one of the truths that is axiomatic.

Applied to medicine, this truth means that only by organization can physicians wield the influence over legislation and public opinion which will enable them to achieve the objects now most prominently commanding their attention—advance in the standard of medical education, progress in their art and in preventive medicine, and elevation socially and materially.

It is by association in medical societies that these great ends are to be achieved. No physician, however small or large his practice or experience, should fail to contribute his share to the labors of these organizations, or deprive himself of this means of development and growth and liberalization. Attendance at such societies is a duty he owes to himself, to his fellow physicians, and to humanity whose ills he ministers to.

We are freshly reminded of the necessity of an earnest consideration of these facts by the announcement of the approaching meeting of the Michigan State Medical Society which will be held at Kalamazoo Thursday and Friday, May 9th and 10th.

Michigan is far behind some of its sister states in protection from unqualified practitioners, in sanitary prevention and control of disease; and if improvement in these and other important directions is to be made, organized action through medical societies is essential.

We would therefore urge upon our readers who are not already members to join their state and local medical associations, take an active part in their work, and use the influence of their voice and vote for the furtherance of the laudable objects for which these societies are established and play their part in the advancement of medicine and the betterment of their own environment.

Papers to be read before the meeting of the Michigan State Medical Society should be sent as early as possible to the secretaries of sections, as follows: Practice of Medicine—H. B. HEMENWAY, M. D., 524 South Park St., Kalamazoo; Surgery—F. W. MANN, M. D., 250 West Fort St., Detroit; Obstetrics and Gynecology—C. HENRI LEONARD, 18 John R St., Detroit.

Particulars of the meeting may be had from GEO. L. DUFFIELD, M. D., Secretary, 25 Washington Ave., Detroit.

CAN A DOCTOR MAKE A LIVING WITHOUT ADVERTISING?

This question, which doubtless many physicians have asked themselves, is answered in the negative by a correspondent of the Medical Register,* who states that the answer to it depends very much upon what one means by the term advertising. Any method whatever by which a medical man apprises, informs, makes known, announces, promulgates or publishes the fact that he is practising, or is ready to practice, the healing art, is, according to the dictionary, a method of advertising. It is very apparent that unless a doctor in some way acquaints the public with the fact that he is ready to receive patients, he is not likely to see his office door darkened by the presence of clients. Therefore it is true that a doctor cannot make a living without advertising.

There are a great many ways by which a doctor may advertise. Some of them are considered legitimate; others are regarded as unprofessional. And in some sections of the country methods of advertising regarded by the profession elsewhere as perfectly legitimate are looked upon with disfavor.

Among the methods of advertising used by physicians the following are mentioned: The doctor's sign; the dispensary; the certificate plan; the medical school and hospital; the medical book; the sanitarium. Of these various plans, some are regarded as legitimate and professional; others are not. Some forms of advertising, the legitimacy of which might be

*Dr. F. E. Stewart, Medical Register, March 9, 1889.

questioned, are used extensively by medical men high in the profession, while other forms not so objectionable are stamped with professional condemnation.

But the best advertising of all is the doing of good work. Cures advertise the successful physician as nothing else can. There can be no question that such a method of advertising is both legitimate and professional. He who best serves the cause of suffering humanity receives, and will receive, the reward of patronage. Of course, he who can, in addition to curing his patient, make his cures most widely known, will succeed the quickest. Can a physician adopt any form of advertising to extend his reputation and be considered professional? If he can do so, what form may he sately adopt? These are important questions. Happy is the man who can advertise extensively by adopting means that do not offend his professional brethren.

PROFESSIONAL LYING.

Some contributors to the AGE have recently engaged in a warm discussion as to the ethics of what is termed professional lying, and seem about equally divided as to whether lying to patients is justifiable or not.

Without attempting to settle this moot question we would commend to physicians what may be called the art of reticence. As a writer in Medical Classics expresses it: There is art, the most consummate art, in appearing absolutely frank, yet never telling anything which it is not wished should be known, in being pleasantly chatty and conversational, yet never committing oneself to a statement or an opinion which might be used against one afterward—*ars celare artem* in keeping one's own counsel as well as in other things. It is only after a long acquaintance with this kind of person that you find out he has been substantially reticent throughout, though apparently so frank. Caught by his easy manner, his genial talk, his ready sympathy you have confided to him not only all you have of your own, but all you have of other people's; and it is only long after, when you reflect quietly undisturbed by the magnetism of his presence, that you come to the knowledge of how reticent he has been in the midst of this seeming frankness, and how little reciprocity there has been in your confidences together. You know such people for years, and you never know really more of them at the end than you did in the beginning.

In manner genial, frank, conversational, sympathetic—in substance absolutely secret, cautious, never taken off their guard, never seduced into dangerous confidences, as careful for their friends as they are for themselves, and careful even for strangers unknown to them—these people are the salvation as they are the charm of society; never making mischief, and, by their habitual reticence, raising up barriers at which gossip halts and rumor dies.

It seems to us that habitual reticence after the manner so aptly described would be an admirable manner for physicians to cultivate and would decrease the necessity for professional deceit now practiced under the theory that it is essential to the patients welfare.

ON THE VALUE OF SALOL IN ACUTE RHEUMATISM.

DR. J. ROSE BRADFORD, in the London Lancet, gives his clinical experience in the use of salol in acute rheumatism. Salol has a manifest antipyretic action in this disease. The temperature falls rapidly, but in order that this effect may be produced, it is necessary to give large doses—ten grains hourly to the adult. The temperature does not become normal till after three or four days. As an analgesic, salol is certainly inferior to salicylate of soda, which relieves the pains of acute rheumatism much more promptly and effectually. Relapses under salol are quite as frequent as when the sodium salt is administered.

DR. BRADFORD asks whether salol has the advantage over salicylate of soda of not producing the deafness, noises in the head, etc., so common with the latter drug. His experience obliges him to answer this question in the negative. Patients don't, he says, complain so much of the deafness and other head symptoms, however, these symptoms are all found to be produced, and it is probably simply a question of less salicylic acid being given in the one case than in the other, the salol owing its properties to its salicylic acid. One of the advantages claimed for salol is that it is better tolerated by the stomach than sodium salicylate. Yet when salol is given in ten grain doses every hour for some hours, there is frequently vomiting, though this is not generally severe. Salol is doubtless pleasanter to the taste than sodium salicylate, and this, according to DR. BRADFORD, is about the only real advantage which it possesses.

THE LOCAL TREATMENT OF DIPHTHERIA BY ANTIPYRINE.

BARATO RIBEIRO claims success from the local treatment of diphtheria by antipyrine, the throat being thoroughly swabbed with a ten per cent. solution. Each swabbing was preceded by an application of cocaine. A solution of the same strength was also used frequently as a gargle. In nasal diphtheria, this Italian writer counsels irrigations with the same solution, and insufflations of antipyrine finely pulverized. Internally antipyrine was

given with good effect in combination with port wine and water, two grains every two hours.

RIBEIRO regards antipyrine as a safe and efficient antiseptic and germicide in diphtheria.

Book Notices.

THE PSYCHIC LIFE OF MICRO-ORGANISMS. A Study in Experimental Psychology. By Alfred Binet. Translated from the French by Thomas McCormack, with a Preface by the Author Written Especially for the American Edition. Chicago: 1889. The Open Court Publishing Company. Cloth 75 Cents. Paper, 50 Cents.

M. ALFRED BINET, the collaborator of RIBOT and FÉRE, and one of the most eminent representatives of the French School of Psychology, has presented in the above work the most important results of recent investigations into the world of Micro-Organisms. The subject is a branch of comparative psychology but little known; as the data of this department of natural science lie scattered for the most part in isolated reports and publications, and no attempt has hitherto been made to collate and present them in a systematized form.

Especial use has been made of the investigations of BALBIANA, CLAPAREDE and LACHMANN, MAUPAS, RIBOT, ENGELMANN, POUCHET, WEBER, PFEFFER, KENT, DUJARDIN, GRUBER, NUSSBAUM, BUTSCHLI, LIEBERKUHN. The cuts, eighteen in number, are illustrative of the movements, nutrition, digestion, nuclear phenomena, and fecundation of Proto-Organisms.

The most interesting chapters are those on fecundation, which demonstrate the same instincts and vital powers to exist in spermatozids as are found in animals of higher organization.

M. BINET'S researches and conclusions show, "psychological phenomena begin among the very lowest classes of beings; they are met with in every form of life from the simplest cell to the most complicated organism." The author contests the theory of the distinguished English scientist, PROF. GEORGE J. ROMANES, who assigns the first appearance of the various psychical and mental faculties to different stages or periods in the scale of zoological development. To M. BINET there is an aggregate of properties which exclusively pertain to living matter, the existence of which is seen in the lowest forms of life as well as in the highest.

LECTURES ON NERVOUS DISEASES. By Ambrose L. Ranney, A. M., M. D., Prof. of the Anatomy and Physiology of the Nervous System in the New York Post Graduate Medical School and Hospital, Etc., Etc. Profusely Illustrated with Original Diagrams Sketches and Woodcuts. Published by F. A. Davis. Philadelphia. 1888. Price $5.50.

This work considers nervous diseases from the standpoint of cerebral and spinal localization and the later methods employed in the diagnosis and treatment of these affections.

It discusses the anatomical, physiological and pathological deductions respecting the nerve centres of man; the clinical examination of patients afflicted with nervous diseases, and the steps employed as aids in diagnosis; the diseases of the brain and its envelopes; functional nervous diseases; toxic and unclassified nervous diseases; and electricity in medicine.

The chapters on functional nervous diseases respecting the bearings of eye defect and eye strain upon the cause and cure of these diseases, on the clinical examination of patients, and electricity in medicine will form we believe the most interesting part of the book to the general practitioner.

Some of the lectures seem to have been compiled from articles previously published in current medical journals and to have been elaborated by the author's clinical experience. It is rather a presentation of clinical experience than a systematic treatise on Nervous Diseases.

CAZEAUX AND TARNIER'S THEORY AND PRACTICE OF OBSTETRICS. Eighth American Edition. Edited and Revised by Robert J. Hess, M. D., with an appendix by Paul F. Munde, M. D., with chromo-lithographs and one hundred and seventy-five wood engravings. Students Edition. Price, $5 00.

Philadelphia: P. Blakiston, Son & Co. 1889.

This work of over 1200 pages with its illustrations colored and uncolored, the thorough consideration it gives to the obstetric art, the excellent appendix by DR. MUNDE, is a classic which students of the obstetric art can not well do without.

It would be superfluous to discuss its many merits here, they have been sufficiently attested by its popularity. When we have said that it is systematic, complete, exhaustive, we have said all. Perhaps no work on obstetrics is more referred to as a standard than this, and completed as it now is by DR. MUNDE'S appendix it forms a store house of obstetric art scarcely obtainable elsewhere. When one reflects on the great mass of facts the acquirement of which is necessary to the practice of only one branch of medicine he must needs be impressed with the necessity for specialism which it is fashionable to decry now-a-days. The day has gone by when one man can in all things be all, and the proportions to which the literature of special branches of medical art has grown, if nothing else, would indicate the inevitable tendency of modern times to division of labor, which is simply applied specialism.

KIRKE'S HAND-BOOK OF PHYSIOLOGY. Twelfth Edition. Revised and Rewritten. With Five Hundred Illustrations. New York: William Wood & Co. 1889.

Physiology has during recent years made

rapid strides and these make necessary the frequent revision of works on this branch of science that they may be fully representative of the latest discoveries and *au courant* of current opinion of investigators.

Drs. W. Morrant Baker and Vincent D. Harris, the editors of this work have materially improved in this latest edition upon the last, notably in the sections on the blood, the heart, and the muscular system, while the chapters on the nervous system, the reproductive organs and on development, have been rearranged and largely rewritten. Fifty new illustrations have been added, and the book may now be said to be an able and fully modern presentation of physiological knowledge as understood at this date.

Hand-Book of the Diseases and Treatment of Skin Diseases. By Arthur Van Harlingen, M. D., Professor of Diseases of the Skin in the Philadelphia Polyclinic and College for Graduates in Medicine. Second edition, enlarged and revised with eight full page plates and other illustrations.
Philadelphia: P. Blakiston & Co. 1889.

No class of affections are as a rule more puzzling to the general practitioner than those of the skin, and success in treating them is not only most gratifying to the patient but lucrative to the practitioner.

Many skin diseases are readily curable with a proper knowledge of their etiology and treatment which can be acquired from manuals such as the one before us. Although such study of the subject can not make up for want of actual clinical observation it can do much to establish correct views and facilitate treatment.

Such hand-books as this, therefore, while perhaps of no great service to the specialist should be commended to the use of the general practitioner.

Exploration of the Chest in Health and Disease. By Stephen Smith Burt, M. D., Professor of Clinical Medicine and Physical Diagnosis in the New York Post-Graduate Medical School and Hospital, etc.
New York: D. Appleton and Company. 1889.

A thorough, plain, well presented manual on Physical Diagnosis, clearly written, with understandable illustrations, well printed and bound. The author states that his manual is the outcome of requests from his students for an embodiment of his methods of instruction in physical diagnosis. He recognizes the necessity of a thorough preliminary knowledge of anatomy to the acquirement of expertness in exploration of the chest, and this premised he discusses the physical methods of diagnosis, percussion, auscultation, diagnosis by physical signs of diseases of the lungs, pneumonia, pleurisy, phthisis, heart murmurs, aortic stenosis, etc.

Ringer's Handbook of Therapeutics. Twelfth Edition Wm. Wood & Co. New York. 1889.

This book is an old friend that seems to come to us oftener and oftener in a new dress as the years roll along, as evidence of its prosperity, which shows that appreciation of its merits does not diminish with its years

Less is said in this than in former editions about the physiological action of drugs and more about the indications for their use in disease. Thus making it more completely than ever before a work on Clinical Therapeutics. It is practically helpful to the physician and few will turn to its pages without satisfying information as to the employment of drugs.

Therapeutic Brevities.

Acute Gonorrhœa Treated Successfully by a New Method.—Dr John M'Caw, of Belfast, reported at a meeting of the Ulster Medical Society held January 23, 1889, a case of gonorrhœa contracted four days previously, treated by the introduction into the urethra of medicated bougies; the medicament consisted of sulphate of thallin of 5 per cent. strength.

Before introducing the bougie he made the patient micturate, in order to clear the urethra of discharge, and then passed the bougie up to the ring, and directed him to hold the meatus quite close, so that none of the application could flow out as it melted. He kept him lying on his back for twenty minutes, at the end of which time he withdrew the spring and closed the meatus with cotton-wool. During the time the bougie was in the urethra he complained of smarting pain, but after he withdrew the spring the pain ceased entirely, and he expressed himself as feeling comfortable. He introduced one every evening after this, and on the third day he called to say he was quite cured, having no discharge of any kind, and no pain on passing water. The day following happened to be his busiest day in the week, as he had to work to twelve o'clock at night, and be on his feet the greater part of that time. In consequence of this he could not use his bougie that day at all, and on the next morning there was a slight return of the former symptoms, but he began anew his treatment and after using two more bougies, was again perfectly cured. He has remained so since, although he has undergone the heavy day of the week which caused him to relapse before, and this time with impunity. No bad after-effects of any kind resulted from the treatment, and his patient was very grateful, as well as very much surprised and delighted, for he had been looking forward to a two months' course of copaiba-drinking as in a previous attack with anything but pleasant recollections.—*Dublin Journal of Medical Science*, March, 1889.

A New Treatment of Aneurism.—Our Glasgow correspondent sent us last week a short account of a demonstration by Dr. MacEwen of a new method of treating aneurisms. Needles are passed into the sac in such a way as just to

touch the lining of the opposite wall. The oscillation of the needles causes a succession of fine scratches "on the inner surface of the endothelium, irritating it slightly and leading to the proliferation of leucocytes," which develop into a white fibrous mass. It is certainly difficult and probably unsafe to criticise a method of treatment without a knowledge of all the details, which were no doubt forthcoming at the meeting at which the demonstration was made. For example, we do not know if this method has been tried in the human subject, and whether the results have been submitted to careful examination. But, judging from the brief account quoted from, this method does not commend itself to us. We cannot think that it is based on right principles. Of course we need not say that in aneurisms coming under a surgeon's notice there is no endothelial lining of the sac, and that in the majority of cases there is more or less blood clot or laminated fibrin. We can quite imagine that the scratching of the needles might be useful in starting fresh coagulation, and so leading to the consolidation of the aneurism. But it would require enormously strong evidence to prove that proliferating leucocytes could organize into a firm mass of connective tissue amid the tumultuous flow in a large aneurism. And it also seems clear that the layers of laminated fibrin within the true sac of an aneurism are a very serious obstacle to organization of any material within them. Other practical objections to this plan of treatment are the possibility of causing ulceration of the sac or acute inflammation of the surrounding tissues, and also the difficulty of adjusting the needles with sufficient precision.—*Lancet*, March 9, 1889.

Apomorphine the Best Emetic for Children.—John Brown, M. B., B. Ch. Viet., etc., in British Medical Journal, March 9, 1889, considers apomorphine a safe, certain and quick emetic, and especially good for inducing emesis in children. He uses the following solution: Apomorphin. chlorid., gr. j; sp. vini rect. ℥20; aquæ ℥110. Each 10 minims equals one-twelfth of a grain of the alkaloid.

He cites ten cases taken seriatem from his case books. In these the average interval between the hypodermic injection and the emesis is 10.1 minutes. As a rule, the vomiting only occurs two or three times at short intervals. The depression is only what might be expected after an ordinary vomiting. He says: I have observed no case approaching fatal or even serious collapse. Only two of the cases were adults, the others were very young children. Cases 4 and 5 were my own children, and I have the greatest confidence in giving it hypodermically to any of my children who may require an emetic. Everyone must have observed how difficult it is to make an infant or a child under 4 years vomit by giving emetics by the mouth. I have been surprised that authors on children's diseases do not recommend apomorphine hypodermically.

Emptying the Bladder by Manual Compression.—Dr. Julius Heddaeus, of Idar, has found manual compression of the bladder an admirable substitute for catheterism in a considerable number of cases where mechanical aid of some kind is imperatively called for. He employs two methods, which may be used alternately, so as to give relief to the hands when they get tired. In the first method the surgeon stands by the side of the patient, who lies on his back. Looking towards the patient's face, he lays the right hand on the left, puts the thumbs together, and then grasps the bladder so that the thumbs lie close to the symphysis, pressure being made, of course, downwards and backwards, and the thumbs being gradually approximated to the little fingers. In the second method, the back is turned to the patient's face and the bladder grasped with the hands placed with their ulnar boarders against Poupart's ligament, the finger tips meeting over the pubes. In the first method the chief work falls on the thumbs, in the second on the fingers. The latter is especially applicable in cases where the bladder is only partly full. Manual compression must only be employed very lightly in cases where the bladder is overdistended, and where there is any inflammation or pain it is altogether contra-indicated. It is mainly useful where there is paralysis of the muscular coat of the bladder, whether with or without further paralytic affections. When the sphincter is paralyzed, so that incontinence exists, this method may be employed for emptying the bladder after it has partially filled, so as to prevent the constant dribbling. One advantage of the manual method is that it may be safely taught to the patient's attendants in many cases, and thus the bladder may be emptied at stated times, and as frequently as the surgeon thinks requisite.—*Lancet*, March 9, 1889.

The Treatment of Ozæna with Glycerine.—At a recent meeting of the Society of Military Surgeons in Vienna, Dr. Sidlo strongly recommended the treatment of ozæna with glycerine. His method consists in daily washing out the nasal cavity with a two per cent. solution of chloride of potassium, to which ten per cent. of glycerine has been added. This is followed up with the insertion of rolls of cotton soaked in a mixture of one part of glycerine and three parts of water, the tampons being allowed to remain in place for an hour at a time. Using this method he claims good success in the management of ozæna. The method requires some weeks to effect a cure; but no one who has treated ozæna often will think a few weeks too long to devote to any method which is likely to be successful. The one proposed by Dr. Sidlo is so simple and apparently so rational that it certainly seems worthy of further trial, and if other medical men can cure such cases as he has cured in this way, it will be a very useful addition to our therapeutic resources.—*Med. and Surg. Reporter*, March 30, 1889.

New Antidote for Morphine.—Prof. Bokai, of Klausenberg, believes that the best antidote for morphine is picrotoxin. The two substances act in an opposite manner on respiratory centre, morphine paralyzing its action, while small doses of picrotoxin increase it. As in poisoning by morphine death occurs from paralysis of the respiratory centre, and as picrotoxin hinders this paralysis, it follows that picrotoxin is likely to be of real use in mor-

phine poisoning. In morphine poisoning, diminution of the blood-pressure plays an important part, but picrotoxin enjoys the property of stimulating the vaso constrictor centre of the medulla and thus counteracts the effect of the morphine. Once again, the action of these two substances on the cerebral hemispheres is also of an opposite character. As atropine, the only known antidote of morphine, cannot be administered in large doses, it is certainly desirable that other means of combating morphine poisoning should be sought for. Professor Bokai thinks that picrotoxin may be useful as a substitute for preparations of nux vomica, and he also believes that it will be found of value in preventing chloroform asphyxia.—*Lancet*, March 9, 1889.

Treatment of Carbuncle by Iodoform.—Mr. Whitehead (Manchester) has successfully treated three cases of carbuncle, by the subcutaneous injection into the base of the tumor of a concentrated ethereal solution of iodoform. In each instance a momentary burning pain was experienced by the patient, but this was immediately followed by permanent relief from suffering. On the second day, the induration and redness had subsided, and the central slough was dry and withered. Within a week, all traces of the disease had disappeared, with the exception of a dry superficial dark scaly scab, which eventually separated without leaving any conspicuous indication where the carbuncle had been.—*British Medical Journal*, March 2, 1889.

Acetanilid in Neuralgia.—Dr. Amblard De Nimes (Semaine Medicale—Revue Odontologique; Cest. Jah.) reports the following cases:

After all the remedies had failed, 50 centigram of acetanilid were given to relieve the severe neuralgic toothache of a woman 35 years old, and the pain ceased. After 24 hours, during which the patient enjoyed rest, she experienced another attack which however disappeared on the administration of a second equally large dose of acetanilid. A second case was that of a boy, 14 years old. A half hour after the administration of 50 centigrams of acetanilid, the pains ceased.—*Medicinish Chirurgische Rundschau*, p. 194, Mar. 1889.

Iron and Cascara in Constipation.—Our Paris correspondent sends us a formula of Luteaud's for the constipation of women who are chlorotic and dyspeptic. It shows, he says, that iron can be very well associated with cascara:

℞ Citrate of iron and ammonium,
Fluid ext. cascara sagrada, āā 40 parts,
Saccharin, 1 part,
Distilled water, 4,000 parts.

The dose of this preparation is a teaspoonful before each meal.—*N. Y. Med. Jnl.*, 3, 30, '89.

The Local Employment of Hydrastis Canadensis.—Dr. Felsenburg, of Vienna, strongly recommends the local employment of the fluid extract of hydrastis canadensis in chronic pharyngitis, whether combined with enlargement of the tonsils or not. Having employed frequent daily swabbings out of the throat in large number of these cases, he found that great improvement both externally and in the subjective sensations invariably followed very quickly. He suggests that similar treatment might be found beneficial in chronic inflammatory affections of other mucous membranes.

Ergot Hypodermically in Facial Neuralgia.—Dr. J. T. Stewart, in the Peoria Medical Monthly, states that from one to three hypodermic injections of a specially pure and strong fluid extract of ergot will stop the pain of facial neuralgia permanently. The needle is inserted over the seat of pain, and from eight to twelve minims injected. The extract is made so that each minim represents two grains of the drug; the ergot must be fresh, and the extract reasonably so. The injection gives pain for ten or fifteen minutes, and when this ceases it is found that the neuralgia has disappeared.

Cocaine Pills for Toothache.—

℞ Hydrochlorate of cocaine . 15 parts
Powdered opium..... 64 "
Menthol..... 16 "
Althæa root..... 48 "
Mix with glycerin and gum arabic.

Make into pills of one-half grain weight each and place a pill into the hollow of the tooth.—*Courier Medical.*

Medical Progress.

Action of Glycerin in Constipation.—In the Medical Clinic of Prof. Pribram, Prague (Prager Med. Wochenschr., 1888, No. 22) 115 glycerin clysmæ were administered in the following manner: By means of a small tin syringe, 2 ccm. of glycerin were introduced into the upper part of the rectum. In 101 of these 115 cases, evacuation followed. It usually ensued in from 2 to 15 minutes after administration of the clysma, varying extremely in character from the very firm to the purely diarrhœal. In spite of the large number of experiments, no satisfactory answer to be obtained to the question how certain pathological conditions, in respect to evacuation, were affected by the clysma. Unpleasant collateral effects were not observed in any case. Besides, the post-mortem examinations of five patients, treated with glycerin clysters, exhibited no alterations in the mucous membrane of the bowel. What the action of the glycerin is could not be determined by experiment. It was distinctly shown, however, that it does rest on mechanical irritation or on the withdrawal of water, inasmuch as, for example, solutions of albumen introduced into the rectum, showed as little result in the evacuation of the bowels as concentrated solutions of sodium sulphate.*—C. Rosenthal, in *Centralblatt fuer die Medicinischen Wissenschaften*, No. 5, p. 91.

*Glycerin suppositories are now a more popular way of securing the effects of glycerin in this country than glycerin clysters or enema. Like other forms of glycerin, they are not invariably followed by defecation, but are in a large proportion of cases in which they are used.

ANTHRAROBIN.—Anthrarobin, which was originally discovered by Liebermann, seems to possess equal value with its relative chrysarobin and to be capable of substitution for this substance in the treatment of skin disease. It is a yellowish powder, tolerably stable in a dry atmosphere and is not soluble in acids or water, but readily soluble in dilute alkaline solutions or alcohol, at first making a solution of a brown color, which as oxygen is taken up passes to a green and finally a violet.

Therapeutically, anthrarobin has been employed by Rosenthal and Behrend, and more recently Köbner has recorded in the *Wiener medicinishe Presse*, No. 53, 1888, his experience with it, employing it with good results in a 10 to 20 per cent. solution in the various forms of tonsurans as a wash. Rosenthal has used it in psoriasis and pityriasis versicolor and herpes, and Behrend asserts that it is often better in its effects upon the skin than chrysarobin, as it produces less inflammation and only discolors the skin slightly. It also possesses the additional value of making so slight a stain on the linen that it can be removed by washing.

According to most authorities, it is best to keep it in alcoholic solution and if the bottle is well corked such a mixture remains good for a week.—*Med. News.*

THE PREVENTION OF PERINEAL LACERATIONS.—Since about thirty per cent. of childbearing woman have a lacerated perineum at some period in their lives, there is little wonder that this particular portion of the anatomy should receive a vast deal of attention. We regret to observe, however, that in these last years gynecological art has been much more devoted to the study of how to sew up the perineum than of how to prevent its laceration. It is not creditable to modern obstetrical art that so large a percentage of injuries occurs during parturition; that fifteen per cent. of women must be, and thirty per cent. are, torn. One might almost be tempted to think that if the perineum were not so much of a support to the obstetrician he would support it in more effective style. This is perhaps an ungracious supposition, and it may be that, in fact, the modern perineum, like modern nerves and stomachs, is wearing out, and that perineasthenia is another mark of our pampered and overwrought civilization.

The directions given by obstetricians for preserving the perineum are sufficiently numerous, elaborate and positive; but each one has his pet procedure, and the general practitioner is liable, after trying one or two, to drop into prophylactic nihilism.

This is not the case, however, with a physician of Lyons, France, Dr. Chassagny by name, who has devised an elaborate mechanical apparatus for the protection of the perineum (L'Union Medicale, 1888, p. 906). This consists essentially in a gutta percha support, which is fastened to the thighs and applied so as to cover the perineum and inferior half of the vulva. By means of elastic lacings a distension of the perineum in the transverse direction is permitted, but a downward stretching is impossible. The head is also thrown forward and made to glide under the pubis. How it works with the shoulders we are not told.—*Med. Record*, March 23, 1889.

NUX VOMICA IN CARDIAC FAILURE.—I would like to draw attention to the value of nux vomica in the above condition. During the fog which ushered in this year I was asked to see two very marked cases, in each of which death must have speedily occurred but for timely relief.

The first case, a lady aged forty-two, had suffered more or less for three years with bronchitis and mitral stenosis. When I saw the patient her face was pale and anxious and her lips livid; the breath was short and rapid, and pulse at the wrist could scarcely be felt; nausea and occasional vomiting of mucus were present, and there was dread of taking food or lying down. The condition had commenced ten hours previously with epigastric pain; but while the other symptoms had increased in severity, the pain seemed to have remained stationary. I prescribed tincture of nux vomica in small doses every-half hour for four doses, then every hour, and there was rapid return to the ordinary condition, although the surroundings and the fog remained for some time as they were before.

The second case was that of a gentleman aged forty-nine, who had suffered for some years from mitral regurgitation and persistent although mild bronchitis. Exposure had induced an attack of left lobar pneumonia, which had been running the usual course until the fifth day, when a dense fog occurred in his district. Upon examination his pulse was found to be weak, rapid, irregular, and easily collapsible; his extremities were cold, with clammy perspiration all over his body, and beads of the same upon his livid countenance. He complained of intense pain over the apex of the heart, and his breathing was short and hurried. There was no sickness. His condition had been gradually taking on the above aspect for four or five hours. He had been taking digitalis for two or three days previously to the attack. This we at once stopped, and substituted tincture of nux vomica, as in the other case, with the result that the patient gradually rallied, and in twenty-four hours had lost his cardiac pain entirely.

I think there can be no doubt that the administration of the nux vomica in the above cases stimulated the motor centres and the ganglionic system to increased activity, and rescued the patient from the consequence of obstructed pulmonary circulation and engorgment of the right heart.—A. Bowie, M.D., C.M., L. R. C. P., in the *Lancet*, March 2, 1889.

ON THE TREATMENT OF TÆNIA.—Berenger-Ferand, who has written a book which is authoritative, "On the Tæniæ of Man," has published in the Bulletin Général de Thérapeutique, February 15, 1889, an article in which he sums up the cases of tapeworm—in all one hundred and ninety-one patients—at the Maritime Hospital of Toulon during the past year (1888), and the results of treatment.

Of these 191 patients treated for tapeworm at the above hospital, 112 were discharged cured, the worm being expelled head and all; in every instance the tænia was of the variety known as *Tænia inermis*. In 87 instances but one parasite was found; in 11 there were two; in four there were three; in one there were five; in two

there were six; and in one unparalleled case seventeen heads were counted as the result of an anthelmintic.

As for the time during which these patients had been afflicted with the parasite, four had carried their tæniæ for three years; two for eight years; and one for eleven years.

As for the treatment, it is still to pelletierine that Bérenger-Férand gives the preference, this tænicide, which is the active principle of pomegranate bark, being by far the most successful of all remedies used. During the year 1888 pelletierine was employed one hundred and fifty-two times as a tænifuge at the Toulon Hospital. Of these cases one hundred and ten were successful, forty-two were unsuccessful, giving 72 per cent. of recoveries.

As for the manner of administration of the remedy, the patient takes nothing but bread and milk for supper the evening before; the next morning thirty centigrammes (five grains) of the sulphates of pelletierine and isopelletierine are administered in solution with fifty centigrammes (eight grains) of tannin (or half a bottle of Tanret's solution of the mixed pelletierines, the other half to be given in an hour); from 7:30 A. M. to 8 A. M. a full dose of a teaspoonful of the German tincture of jalap is given, or from an ounce to an ounce and a half of castor oil. A few hours after the ingestion of the medicine the patient experiences a slight vertigo, and the tapeworm is voided, as a rule, four hours after the dose is taken. In order to avoid breaking of the worm during its passage, and before the head is voided, it is advised that the patient shall sit at stool in a vessel nearly full of warm water. Bérenger-Férand has lately resorted to injections of a decoction of pomegranate bark to assist the expulsion of the worm, and claims that this is an improvement in the treatment.

It is needless to say that the above is now the favorite treatment of tænia in France, and Dujardin-Beaumetz affirms that "since we have established these rules of treatment, and wherever patients have scrupulously complied with them, we have had numerous successes, and in nine cases out of ten we obtained the worm with the head."

Bérenger-Férand finds in his last year's experience in the treatment of this painful malady gratifying confirmation of the results obtained in the past years, and which have been alluded to in former numbers of this journal.—*Boston Med. and Surg. Jour.*, March 7, 1889.

THE ABORTIVE TREATMENT OF SPECIFIC FEVERS.—A little work has recently been written by Dr. C. R. Illingworth, of London, entitled "The Abortive Treatment of Specific Febrile Disorders by the Biniodide of Mercury." The contents of this brochure are hardly so pretentious as the title. Dr. Illingworth claims only that the drugs which he recommends are the most effective agents in treating the specific fevers. He does not waste time in laboring to prove any hypothesis, but contents himself with asserting that the disorders in question are caused by germs which, when acting virulently, makes exhausting depredations upon the corpuscles of the blood. The treatment, therefore, indicated should be germicidal and hæmatinic.

The biniodide of mercury will answer every purpose as a germicide, while iron serves as a hæmatinic. Furthermore, since the abstraction of oxygen from the blood reduces also the amount of fibrin, making it more fluid, the use of ammonia, soda, and such medicaments as lessen the fibrin-forming power of the fluid is contra-indicated.

While all the specific fibrile disorders, from whooping-cough to syphilis, may be treated by the biniodide, it is in scarlet fever, diphtheria, and measles that its action is here specially described.

The biniodide is given in the form of pills, powders and mixture.

The mixture for an adult is as follows:

℞ Sol. hydrarg. biniodid. (B. P.), ʒ j.
Potas. iodid., ʒ ss.
Syr. et aq. menth. pip., q. s. ad ʒ viij.
M. ʒ ss. q. 2, 3, or 4 h.

For a young child, from one-third to one-half of this quantity is given. The pills contain gr. $\frac{1}{16}$, gr. $\frac{1}{8}$, and gr. $\frac{1}{4}$, to be taken three times daily. For infants and young children the powders answer best, and they are made of the strength of gr. $\frac{1}{16}$, mixed with sugar, and taken three times daily.

In the treatment of mild cases of scarlet fever the patient is given gt. ss. to gt. j. of perchloride of iron, with gr. ij. of chlorate of potash, every two or three hours, and biniodide three times daily. When there is very great disturbance of the stomach, the acetate of ammonia, of salicylate of soda, may be added to the above for a time.

Local treatment is at the same time imperative. This consists in the application to the throat of a solution made as follows: Add ten minims of a 1 in 4 solution of potassic or sodic iodide to ʒ jss. of a 1 in 500 solution of the bichloride of mercury and sweeten to ʒ ij. with pure glycerin. This makes a red mixture, in which the biniodide forms a fine precipitate suspended in glycerin. In those cases in which the biniodide mixture is vomited, a combination of bismuth, carbolic and hydrocyanic acids answers well, while the biniodide is given in powdered form.

In the malignant form of scarlet fever, Dr. Illingworth follows the usual practice. He increases the amount of iron in its astringent forms, adds alcoholic stimulants, and gives the biniodide as usual. He wisely advises against the use of antipyrectics, such as antipyrin, antifebrin, or aconite.

The biniodide has also proved an efficient prophylactic.

The biniodide treatment of diphtheria is much the same as that for malignant scarlet fever. The same treatment is "signally efficacious" in whooping-cough.

The criticism which would be made of Dr. Illingworth's biniodide treatment is, that it is not a biniodide treatment at all, but might just as well be called the iron and potash treatment. How much of good effect comes from the germicide is a question very far from being settled by the evidence Dr. Illingworth gives us.—*Med. Record*, March 23, 1889.

The Medical Age.

Vol. VII. DETROIT, APRIL 25, 1889. No. 8.

Original Articles.

GRANULAR CONJUNCTIVITIS—THE SO-CALLED GRANULAR LIDS—CAUSES, VARIETIES, TREATMENT.

BY PROFESSOR ARMAND DESPRIS.*

Granular conjunctivitis is a frequent disease in young subjects, in children and adults with scrofulous or lymphatic constitution, or that live in damp habitations. But granular lids are also sometimes met with in adults otherwise healthy.

The granulations may be regarded as hypertrophies of the papillæ of the lids and caruncle. It is generally in the caruncle and culs-de-sac of the conjunctiva that the granulations commence. Eight times out of ten the disease begins by a catarrhal conjunctivitis of medium intensity. There may be first of all a pricking sensation in the eyes; the caruncle has a reddish, swollen aspect, and itches and smarts. In the morning the eyes are stuck together, with crusts at the base of some of the lashes, and this state frequently lasts for months, with alternations for better and worse, according to the weather, and according to the care the patients take of themselves. You will know these patients when some distance off, by the peculiar appearance of the eyes. The borders of the lids are reddish brown at the external and internal angle, and the rest of the eye is absolutely healthy.

Some patients have simple catarrhal conjunctivitis, with muco-purulent secretion. The conjunctivitis lasts seven or eight days, and, with a diminution of the discharge, all seems well again. But at the end of several weeks, on taking cold, or on exposure of the eyes to the wind, or after using them in too strong light, the eyes become red, there is a free watery discharge, and the lids are somewhat stuck together in the morning. The return of the conjunctivitis is then followed by a granular condition of the lids such as I have above described.

Lastly, frank, purulent conjunctivitis, blennorrhagic or otherwise, may be followed by granulations. These granulations, however, are not generally very rebellious to treatment. At the same time, it must be admitted that this termination of purulent conjunctivitis is not common except in lymphatic subjects, or such as live under bad hygienic conditions, inhabiting unhealthy places.

The granulations present themselves under three forms. A fourth form has been described by ophthalmologists who have studied these granulations *in block*, under the names of *acute* and *chronic trachoma*. The mistake with oculists has been, that they have made of granulations of the conjunctiva a special disease, instead of considering this granulated condition as a mere complication of diseases which are peculiar to subjects of a special temperament, and it is the way in which the granulations begin which has given rise to the varieties.

The granulations present themselves under three forms:

1. When they are the consequence of a simple purulent or diphtheritic conjunctivitis, these granulations are large, soft, bleed readily, and resemble proud-flesh infiltrated with serosity. They occupy the caruncle and the conjunctival cul-de-sac. Sometimes they cover entirely the palpebral conjunctivæ. The secretion is quite abundant, and the patient experiences a smarting in the eyes, but no real pain. These granulations, which have been called inflammatory granulations, get well ordinarily quickly, and rarely leave behind them that finely granular condition so often connected with the catarrhal conjunctivitis of moderate intensity.

The granulations which constitute the second form are of a lively red appearance, but little elevated, and ordinarily only visible by reflected light. Thanks to this mode of exploration, you perceive a villous velvety aspect of the palpebral mucosa. The granulations occupy as their preferred sites the angles of the lids and the conjunctival folds at the internal or external angle; next in order, the internal aspect of the lids. They resemble, feature for feature (though the redness is less), the villous projections of the vaginal mucosa which is affected with vaginitis, or those of the mucous membrane covering the glans penis when this membrane is the seat of balanitis.

The third form of granulations, is in reality only a more advanced degree of the second form. Along with these *hypertrophic granulations* (for so in my judgment we should call them), it is not rare to see cicatrices, a sign that the granulations are old. These cicatrices

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are to be looked upon as the result of the treatment employed to cure the conjunctivitis which gave rise to them, and especially to the caustics which have been employed to cure the granulations.

There are granulations of a fleeting character which exist without any apparent conjunctivitis. I have myself had them; they get well without any treatment, or with the help of a collyrium of sulphate of copper, one gram to the ounce of distilled water. Night watching, exposure to wind, work by lamp light, etc., give rise to these granulations which are a result of irritation of the eyes, and repeated winkings provoked by fatigue and dryness of the eyes. It is the first stage of conjunctivitis without hyper-secretion. Strictly speaking, we have not here to do with granulations, and these lesions resemble the transient erythema sometimes observed on divers points of the skin, and which gets well of itself, or yields to soothing treatment. Nevertheless, it must be borne in mind that fatigue and a somewhat enfeebled state of the general health are the remote causes of these transitory granulations.

The cause of the conjunctival granulations is a conjunctivitis, just as the cause of the vegetations of the glans penis is a balanitis. Once granular conjunctivitis was regarded as a contagious disease, then the contagiousness was denied, only to be affirmed anew of late.

Let me explain: The conjunctivitis which causes the granulations may be contagious, but it is only the granulations of the first form which are capable of keeping the contagious principle and transmitting it.

On the other hand, from the fact that you may see two sisters of the same family affected with granular lids, you would not necessarily infer that the disease was contagious, for similarity of constitutions, life in the midst of the same unhealthy surroundings, have often much more to do with the genesis of this disease than the propagation of a contagious principle. This fact is well illustrated by the reports of cases occurring in my practice. (*The reports are omitted for want of room*).

The sequelæ of granulations of the conjunctiva are principally certain superficial ulcerations of the cornea caused by frictions of the granulations. These ulcerations, which are small, white, and multiple, give to the cornea a grayish aspect; and when they begin to cicatrize, you will see running up to them a number of extremely fine blood vessels proceeding from the limbus of the cornea. In a word, the granulations cause little punctiform ulcers of the cornea, and later on, a superficial vascular keratitis, a mild form of pannus, due to these punctiform ulcers (*pannus tennis*). These two lesions, bear in mind, are the natural and necessary consequence of the granulations of the palpebral conjunctiva, and of palpebral granulations only. It is especially granulations of the upper lid which have to do with the etiology of ulcerous and vascular keratitis, the cornea being much more in relation with the upper lid than with the lower.

Granulations of the conjunctiva are very apt to return after being once cured. In scrofulous subjects, patients who inhabit damp unwholesome lodgings and are badly nourished, the disease has a very long duration, due to successive relapses.

The *prognosis* of granulations of the conjunctiva is not very grave, except when the granulations have taken on the third form, that is to say, when the granulations have vegetated. There are grave consequences to be apprehended on the part of the cornea when the granulations have long existed, and when there is a superficial vascular keratitis

From what I have just said, one might conclude that the nature of granulations of the conjunctiva is not so difficult to understand as has been represented. The Germans have made of it a hyperplasia of an indeterminate nature.

The granulations of the conjunctiva are not as complicated as these writers have represented; they are of the same nature of those which exist in granular vaginitis, representing on a small scale the vegetations of the vagina, and like these vaginal granulation, they sometimes become real vegetations. In fact, the vegetation of trachoma is the granulation of the third form, *i. e.*, the white, hard, and sometimes ramified granulation. These granulations of the conjunctiva do not begin without a previous conjunctivitis, and it is not the intensity of the inflammation which is most likely to cause stubborn intractable granulations, as it is not the most virulent vaginitis which is most likely to cause vaginal and vulvar vegetations.

Lastly, the treatment which we employ for the palpebral granulations and which is most successful, is almost an exact reproduction of that which we employ for the vegetations of the mucous membrane of the external genital organs.

Apart from the general treatment appropriate to the constitution of the subject, the indications of treatment of the granulations reduce themselves to cauterization and excision. Cauterization in these cases must be of a quite special character, and should not cause any eschar; and for this reason there is but one caustic applicable to these granulations, namely, sulphate of copper. Nitrate of silver, under all its forms, is much inferior to the cupric sulphate, which is only a catharetic or astringent caustic.

The treatment of the granulations varies with their form. In some cases it is always well to keep compresses wet with warm water over

the lids in the day time, and light starch poultices during the night. In grave cases, patients should never use the eyes in any kind of work.

First Form.—Granulations consecutive to a slight conjunctivitis should be treated by a thorough application, twice a day, of the following collyrium:

℞ Sulphate of copper, 0.7 gram. (gr. j)
Distilled water, 32 0 (℥ i)
M.

This collyrium should be applied with the patient on his back, head low. Instil into the inner canthus several drops of the collyrium, so as almost to fill the greater angle. Then open the eyelids, and the collyrium will penetrate between the lids. In order that the collyrium may diffuse itself well over the conjunctiva (which is necessary), you must raise the upper lid a little. This treatment should continue for a variable time; there are granulations which get well in a fortnight, others require two months; and the granular inflammation is liable to relapses in damp weather or in subjects who are scrofulous or exhausted by fatigue and hard work. It is only exceptionally that you are obliged to cauterize directly these granulations with the sulphate of copper crayon, which, however, may be demanded in the event of relapses.

Second Form.—The granulations of the second variety should be treated in the following manner:

Every day, and sometimes morning and evening, at least during the first eight days, you must turn back the upper lid and cauterize it with the crayon of sulphate of copper. It is very easy to evert the upper lids; the more they are swollen the easier this is done. An assistant depresses the lower lid while the surgeon raises the upper. The patient resists, contracts his orbicularis, and himself everts the lids; and the more you cauterize the palpebral surface the more marked is the eversion. When the orbicularis attains its maximum of contraction, it brings to view the entire conjunctiva. In cases where the upper lid does not turn back, you can accomplish this readily by tilting back and forth between the pulp of the index finger and thumb the tarsal cartilage. If you fail by this means, you can employ a pair of forceps and a probe When the eyelashes are abundant, you seize with the forceps a tuft of the lashes, and draw the lid downwards. The probe is placed over the upper border of the tarsal cartilage, and this is turned backwards at the same time that the forceps which holds the lashes lifts up the inferior border of the cartilage. When once the lid is turned back, it easily remains in this position all the time necessary for the cauterization.

When you have cauterized the palpebral conjunctiva, you have accomplished only one half your task; you must cauterize the conjunctival culs-de-sac, and here the small crayon of sulphate of copper is of great utility; you introduce the fine point of the crayon into the external cul-de-sac of the conjunctiva, and end by cauterizing the caruncle and its fold. During all these manœuvers, you must avoid touching the cornea.

These direct cauterizations with the sulphate of copper never cause any conjunctival eschar, and their action is so certain that in the course of ten days you obtain remarkable modifications in the granulations; but you should never fail to make them once a day, and compresses of warm water should be kept continually over the eyes.

The shrinkage of the granulations, the spontaneous opening of the lids, are the surgeon's guide in indicating the period when it will do to stop the cauterizations. Then you will apply, four times a day, the collyrium of sulphate of copper before mentioned; to this solution it is well in some cases to add ten drops of laudanum.

How much time is necessary to cure the granulations of the second variety? Everything depends on the time when the treatment is begun. Nevertheless, if you reckon upon one month for the severe cases without ulcer of the cornea, you will not be far out of the way. When you have to do with relapses, in which the flabby granulations are accompanied with vascular keratitis, you will want three months.

You will read in your text-books that a nourishing diet, change of air, and residence in a healthy and well ventilated habitation are indispensible. No one would dispute the utility of these hygienic measures; but if you were to choose between the hygienic treatment with a common eye-wash, and the direct application of sulphate of copper without the hygienic measures, you would succeed oftener and more quickly with the sulphate of copper applications. However long may be the treatment, you will never, with the sulphate of copper, obtain the ectropions which are common abuses of nitrate of silver.

Third Form.—The granulations of the third variety can seldom be cured, except by excision, pure and simple, of the granulations.

I shall never forget a patient in the service of Nelaton, in 1860, at the time when I was a pupil under this surgeon. This patient was a young girl, aged 22 years, who had on the palpebral conjunctiva of both upper lids, a number of true ramified vegetations, whitish, here red and there violet. After having employed various collyria, Nelaton touched the granulations every day with crayon of sulphate of copper. After a month, he had recourse to scarifications of the vegetation, and repeated them from time to time. The patient submitted to this treatment with untiring patience.

Nelaton was succeeded for several months by Adolph Richard who experimented on this patient with the *blennorrhagic inoculation*, which failed; and shaving of the conjunctiva, which succeeded no better. The vegetations remained, the vascular keratitis persisted, and the patient eventually became blind.

Despite all these treatments, there was no blepharo-phymosis; the upper lids inclined a little inwards and threatened to become entropic.

The patient, however, during the year that I had her under observation, improved somewhat under scarifications of the conjunctiva.

It is needless to say that this patient had granulations for many years; that she had been treated by almost everybody; and that she had been at first treated by a physician who did not well understand the nature of the disease. We do not often at the present day see patients in this condition. The granulations of the conjunctiva are now well understood; they are treated properly at the first, and do not often attain such exaggerated development as in the case of this young patient. Yet you will now and then meet with cases like that which I have just mentioned, and here you should employ excision.

In order to perform this operation, you will turn back the lids, and with scissors similar to those used for making artificial pupils—for instance, like the forceps-scissors of McDowell—you will excise the granulations one by one. You need not fear cicatrices if you excise well the granulations; moreover, as the excisions will be made along the long diameter of the lids, the cicatrices will be linear and parallel with the borders of the lids. After the excision you will make cauterization with the collyrium of sulphate of copper.

It is not necessary to excise all the granulations at once. You may remove one or two at a time, with several days of interval.

The granulations which require excision are the least common, and it is for these that so many different remedial applications have been proposed; remedies concerning which there are hardly observations enough to enable us to decide as to their merit. Thus authorities have recommended alcohol, boric acid, nitrate of silver (the solid stick and strong solutions), dusting sugar of lead in fine powder over the inside of the lids (a favorite though painful method with some), the incision of the internal conjunctival fold, scarifications of the granulations, etc.

Sulphate of copper has given the best success, and should always be employed before the excisions; if it does not destroy the granulations it has at least one advantage, that of modifying the nature of those which have not yet become transformed to vegetations. Those granulations which remain white and project above the mucous membrane are those which ought finally to be treated by excision.

There will be cases where, despite all you can do, the granulations will remain incurable; there is then nothing to do but to remedy the complications as best you may.

The complications and sequelæ of granulations of the conjunctiva ought to be treated after the granulations are cured, or, in the event of incurability of the latter, they should be attended to in time to save the cornea from irreparable injury.

Ulcers of the cornea, when the granulations are cured, may be advantageously treated by daily applications of Dupuytren's powder blown upon the cornea through a goose-quill. This powder is composed of two parts of calomel to one part of fine sugar.

Ordinarily, in the course of a week the ulcers get well under this treatment if the granulations have been previously cured.

If there is a mild degree of pannus, the same treatment is still applicable; but if there is a more advanced degree of the same disease which is absolutely rebellious to cauterization by calomel, it is necessary to have recourse to ablation.

Sometimes, when the cornea has lost its polish, you will hasten the cure by the application of a collyrium of nitrate of silver:

℞ Argent nit. gr. i.
Aquæ dist. fl ʒ i.

For inveterate pannus with extensive vascularization of the cornea, you will have to choose between inoculation of blennorhagic pus, according to Jaeger and Pringer, and shaving of the conjunctiva around the cornea. Both modes of treatment have given success. I have seen them fail in the hands of Dr. Richard and subsequently. Shaving of the conjunctiva, an improvement on the old method of excision of the vessels, proposed by Desmarres and called peritomy, is the treatment to which we generally have recourse, but with varied success, according to the time when the pannus is first treated. Shaving of the conjunctiva is the more likely to succeed, the more advanced the pannus may be.

The pannus which accompanies granulations is, in general, formed by fine radiating vessels, of which two or three are more voluminous than the others. These vessels, which are very conspicuous, have been sometimes cut, and no other operation performed. But what is a little remarkable, as soon as these vessels are cut, other finer vessels, left by the operation, at once enlarge and take the place of those which have been removed. It is for this reason that shaving of the conjunctiva is indicated, and it should be done thoroughly.

Patients with the milder forms of pannus (*pannus tennis*) are not blind; the sight is im-

paired, but it is rare that profound disorders of the eye supervene.

It was formerly the custom to apply a collyrium of Chisolm, which consists of one part of turpentine to 2 parts of olive oil.

When there are persistent granulations which keep up a vascular keratitis, there is sometimes a spasm of the lids to which has been given the name of *palpebral phymosis*.

This accident has given rise to a rational treatment demanded by the condition; section of the palpebral orifice. Apart from spasm of the lids as furnishing the indications for an operation, surgeons have thought that they might thus prevent the granulations from rubbing against the cornea and keeping up constant irritation,—the origin of the pannus.

PAGENSTECHER used to perform an operation designed to enlarge the palpebral orifice. CUSCO in France, was in the habit of performing the operation somewhat differently, and it is his method that I advise:

Incise the external commissure of the lids and make your cut at least 8 m. m. in length. Open widely the lids: the cut then appears as a linear wound, and you will unite the skin to the mucous membrane by the sutures placed near the middle of the wound. It is necessary to pass the sutures through the lids before making the incision, for unless you do this, you will have very great difficulty in putting in the sutures. You will introduce a curved needle threaded with a fine silver wire into the cul de -sac of the conjunctiva, passing it to the very bottom of the fold, and you will bring it out near the border of the orbit upon the prolongation of the palpebral fissure. You will pass a second needle in the same way bringing it out about 2 m. m. below the line corresponding to the prolongation of the palpebral fissure. You thus have your two ligatures in place; you will then incise with the scissors the commissure keeping about two millimetres from the ligatures; this being done, you will separate the lids and make fast the ligatures which unite the skin and mucous membrane. In three days the suture will have done its work, but if one of the two points of suture gives way, and the other holds, the result of the operation will be complete.

M. PAGENSTECHER'S operation is nothing but the incision of the commissure, proposed by VON AMMON. Into the angle of the new commissure the surgeon draws the conjunctival mucous membrane pulling it a little outwards and fixes it there to the skin by a point of suture.

Such are the modes of treatment which you should employ for granular lids and their complications.

To sum up: Begin always by cauterizing the granulations with the sulphate of copper. Do this with patience and regularity, and you will succeed in curing the greater part of patients afflicted with granulations of the first and second form.

In the case of organized granulations, perform excision as you would do for vegetations of the skin and mucous membranes.

NITRO-GLYCERIN AS A HEART-TONIC.

BY O. W. BRAYMER, M. D., CAMDEN, N. J.

The tonic properties of trinitrine in heart-failure, due to loss of blood, are undoubtedly well known to the readers of the MEDICAL AGE. But, being intimately acquainted with many leading practioners in different communities, and knowing that they have never used it, I undertake to report, for the benefit of such, a very interesting success which I have recently had.

The patient, a lady 44 years of age, had been suffering for three weeks from a severe attack of typhoid fever. She was very delirious from the first. Her stomach so irritable that nothing would remain upon it. After the first week, all medicine and nourishment had to be administered hypodermically, or per ano. There was much tympanites, and the whole abdomen was very painful to the touch. The liver was so congested that it looked like a large tumor as the patient lay in bed, and was so tender that screams of agony were uttered on touching it. The fever ran up very high.

At the beginning of the fourth week, the patient seemed to be improving; the fever began to decline, and all bad symptoms were slowly abating.

On the evening of March 23d, I noticed some slight irregularity of the heart's action; the patient seemed to be gradually sinking away; stimulants were given hypodermically; shortly afterward the bowels moved, the stool being nothing but clotted blood, and the patient, began to sink more rapidly. Large doses of ergot, fluid extract, were given hypodermically. Two other movements of the bowels followed, and the bed-pan each time was swimming with bright-red blood. More ergot was given, and cold cloths were applied to the abdomen. At this time the patient seemed to be almost gone; the pulse was not perceptible at the wrist; her body was covered with cold sweat; her face, arms, and lower limbs were icy cold. The family gave up, and some of them pleaded for me to punish her no more, and let her die in peace. But I took no notice of their pleading, and gave four minims, hypodermically, of a one-per-cent. solution of nitro-glycerin; repeating the dose in an hour. Next morning her heart seemed stronger; more of the same remedy was given, and by noon of that day marked improvement was noted; the pulse became perceptible at the wrist, and the patient began to get well.

The bowels were kept closed, for eleven days by opium suppositories, at which time they moved naturally. Several times during this interval, there were some signs of hæmorrhage, but no blood was passed from the bowels. The same remedies were used as above.

To-day, the patient is rapidly convalescing, with no bad symptoms. Bowels move with no signs of blood.

I had never tried trinitriue before, but this one experience has made me a firm believer in its virtues as an indirect heart-tonic. Indirect because of its action, which is to dilate the peripheral blood vessels, lowering the blood-pressure, thereby giving the heart less work to do. Some have observed bad symptoms from the use of this remedy, but in my case nothing of the kind was perceptible.

This tonic property of trinitrine has been known and taught in the different medical schools for some time, but I do not think its use has been spread enough outside of large hospital practice. Every practitioner meets hæmorrhage, and many patients die simply because the heart cannot do its work.

These are the kind of cases where trinitrine becomes of use. I can remember several cases that died from heart-failure due to loss of blood, which I saw during my student life. After my late experience, I feel that the majority of these could have been saved had trinitrine been used. Indeed, I have more confidence because the above were strong men, who had suddenly lost blood from injury, and in whom it is to be supposed there were no degenerations of the heart structure; while my case being in the third week of typhoid, there must have been considerable heart change, making a more unfavorable case.

TREATMENT OF TYPHOID FEVER.*

BY J. M. PATTON, M. D., CHICAGO.

A review of the extensive literature of typhoid fever for the past few years, impresses one with the anomalous position which this disease occupies at the present time in regard to therapeutics. In the ætiology and prophylaxis of typhoid fever, much progress has been made, but general statistics fail to show a corresponding advance in the results obtained by therapeutics.

With the growth of definite pathological knowledge of the tissue-changes obtained in this disease, came the theoretical inference that the parenchymatous degeuerations were the result of high temperature; and, *per contra*, that the reduction of temperature would result in modification of these changes, and of the severity of the disease. More advanced study of the physiological relations of high temperature has developed the theory that high temperature is the result, on the heat centre in the medulla, either of the disease poison, or of the materies morbi of tissue disintegration caused by the poison. If this be correct, it may be readily seen why reduction of temperature, whether it be through heat dissipation, or inhibition of heat production, does not necessitate any modification of the length or severity of the disease, or of the parenchymatous changes which accompany it.

PROFESSOR WELCH, in the Cartwright Lectures, concludes that heart failure, lessened perspiration, renal and digestive troubles, disturbances of the sensorium, all are due more to infection or intoxication than to high temperature.

The late DR. WESLEY M. CARPENTER says is regard to cardiac muscular degeneration, that in a number of examinations it did not occur as often as German writers would indicate. DR. A. L. LOOMIS thinks cardiac failure as often due to failure in nervous supply, as to degeneration.

It is claimed that tissue repair in fever, is diminished more than disintegration is increased; that disiutegration in fever is less than in health, but, comparatively, to repair it is greater; disintegration being incomplete, urea is diminished, but the products of incomplete disintegration are increased. This is a new way of stating the old idea that in fever there is increased tissue metamorphosis, or, as it may better be expressed, that increased tissue metamorphosis is accompanied by high temperature.

The study of the various chemicals which have been lauded for their effect in the antipyretic treatment of typhoid fever, forms an interesting chapter in the treatment of the disease. ZIEMSSEN thinks calomel most important; it reduces the temperature, and, according to LEIBERMEISTER, modifies the infectious iutensity of the disease. Quinine he considers good, but has bad secondary effects; antipyrin in five gram doses, in the evening, in doses of one-half and one grams hourly, very certain, no bad effects, and temperature remains down as long as from quinine; thallin and kairin good, followed by shivering, and temperature soon goes up.

Antifebrin is good, its after-effects mild, but kairin and salicylate of soda he sagely remarks are too antiquated. This is probably the opinion which will soon be expressed in regard to antipyrin and all such remedies.

According to ROSENTHAL, radiation of heat is not increased by antipyrin.

H. C. WOOD claims that dissipation of heat is lessened by antipyriu, but proportionately not so much as heat production is.

*Read before the April meeting of the Chicago Pathological Society.

It is claimed that this lessening of heat production is due to an inhibitory metamorphosis, either by a direct action on the tissues, or through the nervous system. Now if in fever both tissue repair and tissue disintegration be diminished, the former more than the latter, then the action of antipyrin in inhibiting tissue disintegration, without improving tissue repair, will simply load the economy with the products of incomplete oxidation not in a condition to be eliminated; and the parenchymatous degenerations are not modified, if, indeed, they are not increased by its action.

It has been shown that not only is urea diminished by antipyrin, but the transformation of hepatic glycogen into sugar is interfered with; it is said that the liver is from 6 to 12½ grams heavier after the use of antipyrin than it is after treatment by cold baths.

Recent experiments tend to show that the heat centre is located in a thermal tract running through the medulla, irritation of this tract producing increase of bodily temperature.

The universal reduction of temperature by antipyrin under all circumstances, whether in health or disease, would seem to indicate an action through this centre, and the question may fairly be raised, whether its action on this centre may not interfere with an exhibition of temperature equivalent to the tissue changes which may at the time be in progress. The rapid rise in temperature after the effect of the drug is expended, which often takes place, would indicate resumption on the part of a centre whose function has been interfered with. All writers agree, that the pathological changes in typhoid fever are not modifed by antipyrin, nor is the course or severity of the disease lessened. Statistics do not show any regular modification in the mortality rate through its administration.

Recently some statistics have been compiled by SIMON BARUCH, of New York, to prove the efficiency of cold baths in typhoid fever, as practiced by BRAND, of Stettin, Germany. He agrees with BRAND that the only advantage of antipyretic treatment is to enable the patient to die with a nearly normal temperature. Cold baths he considers antifebrile, while antipyretics are antithermic.

According to WINTERINTZ, cold baths actually increase oxidation in health; while the skin is cold and blood vessels contracted, the deeper structures are increased in temperature, and the blood vessels are dilated. The opposite conditions are evidences of fever, and cold baths are directed against these manifestations. The vivifying effect on the nerve centres produces a more vigorous heart's action and improved tension of the vessels. In cold bathing the reflex stimulus to the peripheral nerve endings so energizes the nerve centres which furnish innervation for the various bodily functions, that the system is enabled to maintain the integrity of those functions through a period of threatened failure. The following plan is given: When the temperature in the rectum is over 103°, place in bath of temperature of 65°, for 15 minutes; repeat every three hours while temperature is not below 103°. A stimulating bath may be given in severe cases, consisting of a half bath, of temperature of 65°, with cold effusions, of a temperature of 3 to 8° lower. ZIEMSSEN favors cold bathing, but recommends a gradual reduction of temperature of the water. This is the plan most adopted in this country where baths have been used, and indeed the difficulties which confront the physician in the use of cold baths are likely to influence him toward the modified form of bathing, if they do not induce him to abandon the treatment altogether. But consideration of these statistics will bring up the question, whether physicians can longer afford to neglect so valuable a method of treatment as this appears to be. I give a few extracts from the table given by BARUCH.

REPORTER.	SOURCE.	TREATMENT.	NO. OF CASES	PER CENT.
Brand.	Various.	Expectant.	11.124	21.7
"	"	All kinds cold baths	19.017	7 9
"	"	Strict cold baths.	2.198	1.7
"	Omitting all not treated before 5th day.	Strict cold baths.	2 150	0.0
Zeimssen.	1879—1887 Tübingen Wie. Clinic.	Graduated cold baths and antiseptics.	2.000	9 6
Vogl.	Military Hospital, Munich, 1841-1868.	Expectant.	5.484	20.7
"	1880.	Strict cold baths.	428	2 7
Tripier.				
Bouveret.	Red Cross Hospital, Lyons.	Expectant.	229	26.2
Zeissler				
"	1887.	Strict cold baths.	139	5 0
Delafield.	New York Hospital, 1878 1883.	Mixed expectant.	1.305	24.66

A number more are given, but these suffice to show the great contrast between the results obtained in these methods of treatment. In severe cases, we cannot, longer, in the face of statistics like these, continue to blame the fatal result on the condition, former habits, or obstinacy of the patient; the physician must bear the responsibility himself.

Correspondence.

BERLIN LETTER.

(From our Special Correspondent.)

A Discussion about Acromegaly—The Value of Chloroform-water in Typhoid Fever—Demonstration of a Lung-stone—Singular Cases of Stone in the Nose—Margaritoma or Pearl Tumor—Resection of the Rectum—Microscopic Examination in Leprosy—State Supervision of Meat and Cattle—Palpation of Healthy and Affected Kidneys—New Treatment of Epidemic Diphtheria.

The rare case of acromegaly presented by PROF. VIRCHOW, to the Berlin Medical Society at its meeting of January 16th, led to an animated discussion at a subsequent meeting. As in the case of myxœdema the description and prevention of a new, or at least, very rare affection, has brought out the fact that this disorder is probably by no means so rare as was thought, quite a number of cases having been recorded from various parts of the Empire. PROF. EWALD gave the description of a case of acromegaly which had recently come under his observation. The patient, a man of fifty, had enormously developed hands and feet which in reality looked like paws, but was otherwise normally formed. The man died of carcinomatous pleuritis, and a post mortem examination revealed a total absence of thyroid and thymus glands. Neither syphilitic nor gouty evidences could be found, but he had suffered for years from rheumatism, and a connection between the latter and the subsequently developing acromegaly appears quite plausible.

The affection having this time seized a small man, PROF. EWALD regarded this case as more typical than the one presented by VIRCHOW, where a gigantic man was concerned. The absence of both the thyroid and the thymus gland disproves the assumption of KLEBS that acromegaly is the result of a persisting thymus gland from which elements endowed with a special plastic capacity are transmitted to the blood. A remark made in this connection by PROF. WALDEYER was received with considerable interest, if not astonishment. *The thymus gland*, the Professor said, *does not, as is usually believed, disappear in adult life, but persists in all vertebrates, including man, during life in form of two fat flaps above the heart!*

Your correspondent has just received a paper published by DR. STEPP, of Neuremberg, on the value of chloroform-water in internal diseases, particularly in typhoid fever, which he regards as sufficiently important to present it in its main conclusions to the readers of the AGE. SALKOWSKY first called attention to the disinfecting power of chloroform dissolved in water. He found that cholera-cultures, mixed with an equal quantity of chloroform-water lost their pathogenic character almost immediately. The same observer suggested first the possibility of utilizing chloroform-water in zymotic diseases, such as cholera or typhoid fever. It is, however, the merit of DR. STEPP, to have made actual clinical trials in this direction. STEPP elicited the fact that the disinfecting properties of chloroform-water asserted themselves only if this drug is well shaken up with the medium to be disinfected. In water chloroform is soluble in the proportion of 0.7 to 100 provided the mixture is well shaken.

The first clinical experiments were made by STEPP on a tubercular patient, with daily doses of 10 to 15 drops of chloroform dissolved in 5 oz. of water. This solution has a sweetish, somewhat pungent taste, and produces a sensation of pleasant coolness and refreshment. The addition of syrup renders the taste of the chloroform water more agreeable, and ol. menth. pip. completely disguised the odor and taste of chloroform. In children one drop of chloroform is to be added to half an ounce of water. This mixture is readily taken by children, and produces neither narcotic nor analgesic effects. But the pulse and general condition are so favorably influenced that we are compelled to regard chloroform-water as an analeptic remedy. On mucous membranes the drug has an astringent and styptic action. The therapeutic effects in tuberculosis were found to be negative. In the treatment of children's diarrhœa combined with vomiting, it was found that a very small quantity of tincture of opium combined with chloroform had a curative effect, while with the opiate alone, a much larger quantity was needed to produce the same result. In this infantile disorder, STEPP was thus enabled to produce a cure without inducing stupefaction or somnolence. The author explains the favorable action of the two drugs combined, by the assumption that chloroform removes the decomposition in the gastric contents and that opium is thus more readily enabled to check the peristaltic movement of the bowels. STEPP refutes the theory that chloroform water enters the intestines as such and acts as an antiseptic agent. The observer further relates the salutary effects obtained with chloroform water in the treatment of gastric ulcer, particularly if profuse hemorrhages coexist. It is here best given in combination with subnitrate of bismuth. STEFF regards chloroform water as an ideal gargle for both the healthy and the diseased mouth and adjacent parts. He therefore recommends its use in angina follicularis, diphtheria, pharyngeal catarrh, leucoplacia and whooping-cough. Even in two cases of croupous pneumonia the

observer obtained favorable results with the application of chloroform water. Of greater significance and higher importance than the foregoing observations are those made by STEPP in six cases of typhoid fever. There are, as is well known, at present two diametrically opposed methods of combatting the fever, resulting from two equally antagonistic views concerning the rôle of the febrile temperature BRAND and LIEBERMEISTER view the high temperature as the sole source and factor of danger and call for antipyresis, while NAUNYN and UNVERICHT regard fever rather as a bridge over which the diseased organism returns to its prior state of health; they therefore abstain from antipyretics. How fortunate then, if a third and, as it were intermediating method of treating typhoid fever could be found, which would be both safe and successful. STEPP firmly believes that his experience warrants the statement that chloroform-water answers the requisites of such a remedy. "*Chloroform hat mich in hohem masse befriedigt*" (has given satisfaction in a high degree) are the author's own words. The mode of application was 15 drops of chloroform dissolved in 5 oz. of water given in equal parts daily. The temperature was invariably found to sink in a few days so as to induce reconvalescence.

But far more remarkable was the influence exerted by the chloroform treatment upon the sensory organs. Numbness, the specific typhoid face and expression, and hardness of hearing, disappeared under this treatment in three to four days; the patients grew lively and cheerful, and nothing short of an actual measuring of the temperature would have betrayed the presence of the insidious malady. The author ascribes this favorable influence of chloroform over the typhoid process, not to any disinfecting properties of the drug itself, but to the products of its chemical decomposition within the system. BUCHEIM says chloroform is eliminated as hydrochloric acid or formic acid (CH_2O_2). Some believe that the drug passes through the stomach undecomposed. But it is known that under certain conditions chloroform is readily decomposed. Thus SCHMIEDEBERG pointed out that ordinary lamp-light decomposes chloroform under liberation of phosgenic gas ($COCl_2$), which, during operation with lamp light, appears as a thick mist, with a suffocating odor. This gas originates through direct contact of CO with Cl, in presence of the lamp flames, which emit carbonic acid gas and carbonate oxide in abundance. In the living organism, STEPP believes, we have similar conditions, particularly during a febrile process, when products of oxidation (*i. e.* carbonic acid) are abundantly present. The author further believes that the above mentioned derivation of chloroform either influences the pathogenic microbes of typhoid fever themselves, or enters into a combination with their ptomaines, and thus render the former harmless. It need not be added that we have to deal here with a subject of vital and practical importance, which is well deserving of further and exact clinical researches.

In England chloroform is considerably used for internal purposes. The British Pharmacopœia has three preparations of it, viz : aqua chl. (1 to 200), spiritus chl. (1 to 20), and tinctura chl. comp. (2 to 8 spir. rect., 10 tinct. card. co.). The spiritus chl., particularly, is often used in 10 to 16 drop doses as a favorite adjunct to various mixtures, in view of its sedative, narcotic and antispasmodic virtues. It is also used in England in malaria when quinine has failed.

At the *Verein fur innere Medicin*, PROF. FRANKEL presented a unique specimen—a lung-stone. The majority of members admitted never to have seen nor heard of a stone in the lung tissues. The patient, a woman of 37, had suffered for ten weeks from pain in the lungs. A week ago she was seized with a violent hemoptysis, and in a severe paroxysm of cough threw up the stone, which was the subject of the demonstration. The stone consisted chiefly of carbonate of lime. It is interesting to note that during her pregnancy the woman had eaten a good deal of chalk. FRANKEL regards the stone as a calcified bronchial gland, which perforated the wall. The stone had the size of a bean.

A rhinolith, or stone of the nose, of considerable size was recently demonstrated before the *Arztliche Bezirks-Verein* of Erlangen, by PROF. RIESELBACH. The patient from whom the stone was taken, a woman of 40, had suffered for 11 years from a fetid odor from the nose. Various parts of the stone had at different times been removed. The stone, which filled out the entire posterior part of the nose, was first comminuted in situ, and then extracted.

The piece which surrounded the middle turbinated bone had a length of 3 c. m. A kernel could not be found.

A similar stone was shown by DR. MAURER, which he had extracted from the posterior part of the right nose of an old lady. The patient had for a long time been troubled with being hard of hearing and having an impermeable nose. She had also been operated upon for polypi of the nose. The stone, which was removed by forceps with great difficulty, showed a boat shaped form, and measured 18 m. m.; it measured 2.25 g. (over 32 grains). The kernel of the stone was found to be a small, bright yellow cherry-stone, which probably very many years ago had found its way to the nose and had become incrusted there.

PROF. VIRCHOW demonstrated, at the last

meeting of the Berlin Medical Society, an affection which he described as margaritoma, or pearl tumor. Its principal chemical elements are cholestine atoms. These elements are, according to VIRCHOW, to be found in 30 per cent. of all cases of otitis media having a fatal termination. The petrous portion of the temporal bone is the favorite seat of these swellings, though they can also occasionally be found on the frontal and occipital bones.

PROF. KUESTER, one of the first surgeons of Berlin, read recently before the Society of Berlin Surgeons an interesting paper on resection of the rectum, and presented three patients in whom this operation had been performed for carcinoma, and had been wholly successful. KUESTER said that the results obtained can be regarded as ideal ones. The anal region looked perfectly normal, the sphincter muscles closed perfectly, and the digital examination revealed no alterations worth while considering; and from the cicatrix it would be impossible to know that extensive parts of the rectum had been removed. KUESTER has operated, during the last few years, upon 16 cases of carcinoma recti, seven of them with amputation of the rectum, and nine with resection of the rectum, after KRASTTE'S sacral method. Of the first seven, not one died; of the latter series, two died. PROF. KUESTER regarded the great success of these operations as chiefly due to the preservation of the sphincter muscle, while PROF. BERGMANN regarded this as a matter of secondary importance.

DR. ORTMANN recently observed two cases of leprosy, a disease which is absolutely unknown in Germany. The cases occurred in the vicinity of Memel, a town on the Russian frontier. The microscopic examination showed the bacilli of leprosy in an enormous quantity in all pathological products, particularly in the mucous membranes. As a new fact it was learned that the bacilli were also present in all layers of the epidermis, even in the thick, horny layers of the sole of the foot.

It is a noteworthy fact that in Berlin the meat and cattle brought from the outside cannot be offered for sale without having previously passed a thorough and critical examination by state officials. This work of inspection is executed by 116 trained officers distributed over eight stations. Last year there were returned on account of tuberculosis 202 beef quarters, 33 hogs, 6 calves, 79 single organs. On account of measles there were returned: 4 beef quarter, 85 hogs, and 6 single organs. On account of trichinosis: 18 hogs; on account of thread-worms 102 lungs; decomposition, 9 beef quarters, 6 hogs, 31 calves and 35 single organs. Besides a large number of returns took place on account of inflammation, jaundice and other objectionable conditions.

DR. RAAB has just published a little paper on palpation of the healthy and diseased kidneys, which is of considerable interest on account of the novelty of the subject. The kidney can always, and with certainty, be found by the following directions: Follow a line from the middle of POUPART'S ligament drawn upward and parallel to the median line; at the point of intersection of this line with the margin of the ribs, the kidneys will be found by the hand pressing inward. Before the palpation, the rectum is to be thoroughly emptied.

It is near time that a new and successful treatment of diphtheria should come forth. This time the vaunted remedy has at least one advantage, viz., that of absolute harmlessness. Lime-water is pronounced by DR. HENNIG to be a most reliable cure of diphtheria. We wonder whether DR. HENNIG really believes that the practitioners, who have been so often and so flagrantly deluded in this respect, will receive his eulogistic statement with much credulity. According to HENNIG the application of lime-water produces most favorable results even in the grave and septic forms of diphtheria and also in the scarlatinous form of diphtheria. The drug is easy to take and does not require the services of a trained nurse, its cheapness renders it particularly serviceable in the treatment of the poor. DR. HENNIG has relied upon lime-water in diphtheria for the last ten years, and claims to have obtained far better results than other practitioners. The mode of application consists in gargling with pure lime-water in intervals of one-quarter to one-half hour, and in taking a draught of lime-water after each gargle. Children unable to gargle, receive lime-water internally only, but in larger quantities. The drug may be also applied by RICHARDSON'S atomizer. In order to prevent the lips from getting sore they are to be anointed with vaseline. HENNIG uses besides, the ice-bag around the neck, and chlorate of potash internally. HENNIG claims to have applied his mode of treatment successfully in 1054 cases, and regards lime-water as a genuine specific against diphtheria *Credat Judaeus Apella!*

MOTHER'S MARKS.

EDITOR MEDICAL AGE:

Dear Sir:—In the AGE of March 11, is an article from the pen of J. O. LOWRIE, M. D., of Timpson, Texas, who it seems has been disturbed from his silence by articles written by GHOST believers; unscientific and unphilosophic men. It seems he can no longer hide his light under a bushel, but opens up his armamentarium and gives us (especially me) a few pointers in defense of the rights of science. If I accomplish nothing more than to obtain through your valuable journal the opinions of noted

men on a subject concerning which a great deal has been said and but little written, I will have done something, or if we convince the laity by settling the matter first among ourselves we will have done much.

It is consolation for me to know that I have aroused to a discharge of duty such a scientific M. D. as DR. LOWRIE.

The Dr. says it is as impossible for the mother to mark her child, as it is for the fowl to mark her eggs under her. It is no more impossible than for her to lay the egg without the rooster, and he says she may receive such fright as to disturb the circulation and cause premature expulsion. Yes, and disturb the circulation so that it may arrest the growth of the head of the fœtus. The blood supplies the nutriment, not the nerves. You can hatch a chicken, Dr., by artificial heat, but you can't grow a spermatozoa. He says that I presume and that it is unscientific and unphilosophic. I wonder how long the Dr. has practiced midwifery. He says "to reason scientifically." Is medicine a science? Dr. tell us why it is that children are sometimes born with one or two extra fingers or toes.

You say that an embolus in an artery perhaps arrested the development of the head. What caused the embolus? You have enlightened us by telling us that there is no nervous connection between the mother and child. Now tell us whether the placenta forces the blood to the fœtus or the fœtus to the placenta, and tell us further how many spermatozoa it takes to impregnate an ovum.

You say I had better lay it to the father, who might have had a number of decapitated spermatozoa. I wonder how that happened? Probably the spermatozoa was decapitated in the act of coition. If we were to lay it to the spermatozoa it might happen as often.

I think it lucky that it didn't happen in the cases the Dr. referred to. Better to be born decapitated than to have the marks of that locality on the face. If the Dr. will look at the article again I think he will find that it was in the first weeks of gestation, and not the last, after that blastodermic membrane had formed, let alone the head. He says we are bound to say that the hen or rooster are as capable of impressing their young before their existence as the mother or father. Stop, Dr., and think—there is no blood connection between the hen egg or chicken.

I believe the profession, as a whole, think that there is no such thing as maternal influence, but there is now and then one that does (I am not able to say whether they are all scientific or not).

The laity believe it and give good reasons for that belief. I wonder if DR. LOWRIE thinks that the condition of the mother during gestation, mentally or physically, has any influence over the child. There is no nerve connection. How can it be? I think it a conceded fact that it is very necessary for the mental and physical condition of the parent to be as good as possible during gestation. The Creator has nothing to do with the abnormal *lucus natura.*

L. W. LECRONE.

HEBRON, O.

EDITOR MEDICAL AGE:

On page 108, March number of your excellent journal, Bro. LOWRIE proposes to give us the excellence of science when compared with, as he is pleased to term it, the old woman's theory of mother's marks. But as we fail to see any more pith in his scientific explanation than in Bro. LECRONE'S position, we feel inclined to exclaim: Show your faith without works and I will show my faith by my works.

Without affirming Bro. LECRONE gives the cause of his cases of mother's marks, Bro. LOWRIE intimates all such theories as Bro. LECRONE suggests are to be relegated to the Ghost Theology. Well, so be it. But let us listen to the explanatiou of this Apostle of Science: "The blastodermic membrane, in its division about the third or fourth week of gestation, by some *unknown* cause failed to give off its third division, which forms the brain." What! Unknowu to science? "Perhaps an embolus in an artery." Well, yes, but perhaps it was not; then what? Well, Bro. LOWRIE had two assistants who bravely watched his scientific treatment of two serious cases, neither of which made a mark on the offspring. But is this a sound argument? Let us see. Malaria is said to produce chills; yet we have been exposed to it for thirty years and not had a chill. How often do we find persons exposed to the contagiou of measles, small pox, scarlet fever, etc., etc., and yet not take it. If Bro. L.'s argument is good, then on the same scientific grounds we must say that none of those diseases are contagious.

But Bro. L. exclaims: Stop, gentlemen, and think for a moment that there is not the least nerve connection between mother and child. We are willing to admit that Bro. L., with all his science, may not have discovered any nervous connection, but we reserve the opiuion that true science may some day discover it. And then perhaps birth-marks will not be, as Bro. L. says they are now, mere coincidence that we cannot understand.

When Bro. L. proves that the heu is the equal of the womau, morally, physically and mentally, and that the hen that hatches the chick is its mother, and that there are no abnormal chicks hatched, and that there is a closer nervous relation between the male spermatozoa and the male than exists between the mother and fœtus, we will acknowledge his ar-

gument has some force. And when he proves that Jacob did not change the color of his daddy-in-law's cows by device, we will listen with more interest to his boasted science.

As for ourself, after thirty-five years' research of scientific theories and all the old women's stories, we must confess we have never seen a satisfactory explanation of so-called mother's marks, and never expect to.

L. B. MITCHELL, M. D.

BRINKLEY, Ark.

Editor MEDICAL AGE,

Dear Sir:—I wish to make a few remarks in regard to an article written by J. O. LOWRIE, M. D., of Timpson, Texas, in the AGE of March 11, 1889. I am very sorry to see the doctor so exceedingly happy in his hits against old women's ideas, when so far from shore in so small a boat, when so much is to be learned about which so little is known.

My past 19 years of experience as a physician and surgeon has caused me many times to stop and wonder why it was so many wise heads have been born under such disadvantageous circumstances as the mothers are placed in at the trying moments of confinements. If DR. LOWRIE would spend more of his time on birth-marks in utero, he would learn more about facts. I cite a case in line with some already published in the AGE.

MRS. S., in her third month of pregnancy, while crossing a meadow south of her residence, became frightened at a bull which gave chase to her. Six months later she gave birth to a child, a boy, who had a head shaped like the bull. This child lived to 18 years of age and never spoke a word; when he wanted food he crawled upon his hands and knees and bellowed like a bull.

A second case is as follows: MRS. C. M., in her second month, while on her way to a well near the house, met a crawfish on the walk, became frightened, and seven months later gave birth to a girl baby. Both hands bore a marked resemblance to the two claws of the crawfish.

I have five other bona fide cases I could name and there is no ghost nor doubt in these cases, nor room for argument. Allow me to say, DR. LOWRIE, that it is utterly impossible for a mother to birth-mark her offspring, if she has the presence of mind to touch her body with her hands at the time of the shock.

I am respectfully,

T. L. H.

QUEENE CITY, Mo.

The Medical Age.

A SEMI-MONTHLY REVIEW OF MEDICINE.

B W. PALMER, A. M., M. D., Editor.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

DETROIT, MICH., APR. 25, 1889.

Editorial.

MATERNAL IMPRESSIONS AND IDEATION IN UTERO.

This is a subject upon which a deal can be said, *pro* and *con*, and with little profit to either side.

From the earliest times down to the present, the possibility of maternal impressions being conveyed to the fœtus in utero has been the settled belief of the masses. Nor has the belief been confined to the vulgar or the laity, for medical men from Hippocrates to Ambrose Pare have affirmed it. As an example of the wide prevalence of the belief may be cited the fact that within the last forty years the French Government refused permission to exhibit monsters within the limits of Gallic rule, lest pregnant women might repeat such abnormalities.

Though ideation in utero is mooted, many of the most famous of medical authors and teachers have arrayed themselves on the affirmative side of the question. DALTON, DRAPER, CARPENTER, DARWIN, SPENCER, LANGUELOC, and others, admit that violent emotions, experienced by the maternal parent, may affect nutrition and the specific or general development of the unborn infant; and a few, while inclined to deny the imagination any influence in procuring deformities, do not care to dictatorially negative such a possibility.

The bulk of the medical profession, the thinking and more advanced portion at least, must needs doubt the verity of the majority of recorded cases. As Prof. AUSTIN FLINT, Jr., remarks: It is quite often the case that the mother imagines she can explain the deformity by some impression received during gestation which is recalled only after such deformity is discovered. Again: "Still there are cases which cannot be doubted, but but which in the present state of our knowledge of development, and the connection between the mother and the fœtus, we cannot attempt to explain." (Human Physiology). The acephalous fœtus of Dr. LE CRONE (AGE, Feb. 11th), cannot be in-

cluded in the latter category, but must be regarded in the light of coincidence rather than as a product of impression; from a physiological standpoint, it must be assumed there was lack of cranial development prior to supposed impression.

Dr. Wm. A. Hammond, referring to a particular case, a matter of personal observation, says: "It scarcely admits of a doubt as to the influence of the maternal mind over the physical structure of the fœtus." Again: "The chances of this and other instances I have mentioned, being due to coincidence, are infinitesimally small; and though I am careful not to reason *post hoc*, I cannot, nor do I think any other person can—no matter how logical may be his mind—reason fairly against the connection between cause and effect in such cases. The correctness of the facts only can be questioned." (Psychological Journal, Vol. 21, 1868.)

Dr. E. Seguin (Idiocy and its Treatment) remarks: "Impressions sometimes reach the fœtus in its recess and lop off its legs or arms, or inflict large flesh wounds, before birth—inexplicable as well as indisputable facts."

The argument that there is lack of nerve connection, and consequently of nervous communication, sensibility, and reciprocity, between the mother and fœtus, is not at all tenable on various grounds, neither is such borne out by facts. It is well known that pregnant animals suffering tetanic convulsions from the administration of poisons may convey convulsions to the fœtus, and no traces of the toxics be discoverable in the economy of the latter; and *vice verse* (Savory); and Harvey's record of observations on the crossing of breeds show that influences can pass from the fœtus to the mother. It is also now understood that there are other special senses besides the five formulated by physiologists—psychical senses if you will, occult and mysterious in their workings from the fact their laws are beyond the reach of histological research; and these must be taken into mind when considering ideation and impression. We know impression may be communicated from the mother to the child *after* the latter attains an independent and extra uterine existence, and *vice verse* (*vide* Carpenter, Draper, Spencer, *et al.*); that any nervous shock that deprives the brain of its proper amount of blood (cerebral anæmia) procures conditions—if not of absolute clairvoyance, ecstacy or catalepsy, at least closely approaching thereto—whereby the mind becomes psychically *en rapport* with other minds, and readily conveys or receives impressions, accordingly as it is stronger or weaker than those with which it is at the moment associated. Here is utter lack of nerve conjunction in a physiological and anatomical sense, but the effect is as positive as that of an electric message which leaps from one wire to another without contact; and we dare not deny the fœtus in utero is less impressionable in this direction than individuals leading an independent existence! Further, the unborn child, owing to lack of development and other obvious causes, must needs be more receptive than an independent mind, especially through the parent of which it is for nine months a virtual part. Do not we see nervous impressions reflected in swellings and abnormal growths that are devoid of nerve fibre; and is a viable fœtus to be classed as a lower organism than a steatomatous tumor?

Flint and Acton declare the influences of the maternal mind upon the development of the fœtus, the effect of previous pregnancies, etc., cannot be doubted. The latter cites the case of a woman first wedded to, and sterile by, a hunchback, who upon contracting a second marriage with an undeformed man, gave birth to crooked-backed childern. Such phenomena are by no means infrequent, as is well known to stock breeders. A well known case is that of a mare, accidentally covered in her first heat by an ass, but *without* impregnation, that impressed all her foals by thoroughbred stallions with asinine features or characteristics. Again, the writer possessed a setter bitch that conceived a great affection for an *emasculated* bull dog; and though covered in her first heat by one of her own species, and carefully guarded from puppyhood to old age from improper *liaisons*, she did not fail to convey the impress of the bull-dog upon every litter.

Numerous cases of amputation in utero might be cited, that can be traced to no other cause than impression. One of the most notable, and to which no exception as to facts can be taken, was reported by the late Zina Pitcher, of Detroit, in one of the earlier numbers of the Review of Medicine and Pharmacy. In this instance the impression was derived from the husband who unexpectedly presented himself before the wife minus an arm, and the amputation in the child corresponded to that in the father.

J. Mortimer Granville in the Lancet (1877, Vol. II, p. 115), takes the ground that any influence the mother may exert upon her unborn offspring, whether it be to modify structure or impress susceptibilities, must be through the material supplied from the maternal blood bathing the placental villi—by the physical powers of absorption, or the increative action of the peripheral cells of the placental tufts. The argument, to say the least, is ingenious, and well worthy of perusal. The question is psychological rather than physiological, however, and depends less upon immediate and accidental causes, than the indelible impression made upon the brain of the

mother, that may, long after it has by her been forgotten, still continue to exert an influence upon her unborn infant.

THE USE AND ABUSE OF MASSAGE.

We had occasion, in a recent number of the AGE, to comment on the comparative inutility of electricity as a remedial agent, and are reminded, by an article in the Medical Press and Circular, April 3, 1889, of another extra-medicinal method of treatment, viz., massage, which, although of undoubted value when properly employed, is so frequently carried out by the unskillful, and by impostors without any knowledge of this art, as to be in very many cases without remedial effect. Not only this, indeed, but, if our contemporary is to be credited, massage, as employed in gynæcology, is not infrequently merely a form of systematic masturbation.

The reading of a paper on "Massage in Gynæcological Practice," before the British Gynæcological Society, at a recent meeting, by DR. MACNAUGHTON JONES, was made the occasion by this association, in the discussion of DR. JONES' paper, for severe criticism of what was termed the abuse of massage. In commenting on this discussion, the Press says:

Whatever the value of massage may be, it is obvious that it is not to be calculated from instances in which it has been employed *mal à propos*. There is, however, one point upon which both parties are agreed, and that is, as to the harm done by sanctioning the carrying out of this, or any other, method of treatment by persons whose only title to practice in the particular department has been the payment of a few pounds to some speculative lecturer, or *soi-disant* teacher of the art.

The number of ladies, and gentlemen, who now adorn their patronyms with the proud, and lucrative designation of professors of the art and mystery of massage, is legion. Thir visits in search of employment have come to be one of the trials of metropolitan consulting practice, and we are quite prepared to sympathize with the poor man, who confessed to receiving more applications from persons of this ilk in a month; than he received from patients in a year.

It is a task beyond our competence to adjudicate upon the bearings of the physiology and chemistry of massage, on the strength of which an endeavor has been made to give a scientific basis to a practice which, in one form or another, is as old as the hills. It is quite possible that recondite "chemico-physical molecular changes" are at the bottom of the improvement which indisputably, in many cases, follows a systematic course of massage, even in hands which have not attained the dexterity which two years of assiduous application alone can give, according to the dictum of one of the best known writers on the subject.

We do not doubt that the reactions of muscles, nerves, and lymphatics under the massage treatment must be possessed of the greatest scientific interest and importance, but what concerns us just at present is less the scientific bearings of the system than the question as to whether it is carried out with a due regard to professional proprieties. To any other than a gynæcologist, the details of the process known as massage of the uterus, suggests systematic masturbation more than anything else. The resemblance may be merely fortuitous, and it is conceivable that the sentiment of repugnance which one feels in this particular adaptation of massage is akin to that modesty which regarded the vaginal speculum as an improper, and demoralizing instrument, when it was first unfolded to the gaze of a by no means admiring profession, though no real analogy can be fairly instituted between uterine massage and the use of the speculum, an instrument now as indispensable to gynæcological diagnosis as is the stethoscope to the ordinary practitioner.

The duty of the practitioner, is to cure his patient, and if that cure can only be effected by a course of uterine massage, there is apparently no reason why it should not be employed. If the treatment should arouse tastes in the patient which she would be better without, the fault must rest with thepatient who proves unable to distinguish between what is good for her and what is not. The time is past when the speculum can be accused of fostering tastes at variance with the code of morality, and possibly one's suspicions in reference to uterine massage are only the outcome of a hyperæsthesia of the moral sense. Admitting, for the sake of argument, that this is the case, there can be no two opinions as to the propriety of insisting upon the treatment being carried out by persons whose accomplishments and morality leave nothing to be desired.

We have had very good evidence in the past that this is not invariably the case, and without wishing to push the axiom *ex uno disce omnes* to its logical conclusion, we are warranted in requiring that before medical men refer patients to this or that institution or person, they shall assure themselves of the reputation and *bona fides* of the institution or person thus recommended. If that detail be attended to, medical men may safely be left to use their discretion in prescribing this or any other mode of treatment.

Quackery is not this or that treatment, but the method in which it is carried out, and for this reason it is sometimes possible to point to cases in which even persons within the sacred fold of the profession have been guilty of practices which are perilously near the boundary

line of quackery. To all such an energetic expression of professional opinion should be addressed, and unless a method of treatment which is of undoubted value in a large class of cases, refractory to other kinds of treatment, is to be brought entirely into discredit, and regarded as the specialty of those who have neither reputation nor character to lose, it is essential that some such expression of opinion be vouchsafed.

The subject is not one which is by any means the perquisite of the gynæcologists, and it is to be hoped that it will be brought before other societies in an unprejudiced and dispassionate way, in order that both the profession and the public may be made aware of the manner and extent in which massage may be diverted from its proper sphere, to serve the purposes of unscrupulous and designing persons whose antecedents would in many cases scarcely bear the investigation which ought in every instance to be instituted before a patient, and especially a female patient, be committed to their custody.

GLYCERIN ENEMATA AND SUPPOSITORIES.

Glycerin as a means of securing defecation has now so fully established its place among remedies for the relief of constipation, that it is somewhat remarkable that no absolute knowledge of the method of its action has yet been gained, or at least presented in medical literature.

One theory is that glycerin acts as an emollient not only in itself but that it also from its hygroscopic nature absorbs water from the surrounding tissues, and thus by rendering hardened fæces more fluid, facilitates defecation.

Another theory is that glycerin causes a local irritation which stimulates defecation, probably through congestion of the rectal mucous membrane, since patients experience a sensation of warmth or burning in the rectum after the injection. There is observed also a slight elevation of the rectal temperature, and on digital examination during calls there may be detected contractions in the upper portion of the rectum.

Whatever the theories of the nature of its action may be, the fact is, that glycerin is now largely and successfully used to induce defecation, and is likely to prove permanently popular as a rectal excitant in cases of occluded rectum, atonic action of the rectal muscles, and when it is desired to empty the lower bowel without disturbance of the stomach or palate.

In the Vratch, Nos. 1, 3, and 4, 1889, p. 1, Dr. Alexandr S. Polubinsky, of St. Petersburg, publishes an ably-written and very instructive paper on the treatment of constipation of various forms by means of glycerin, administered in the shape of either enemata or suppositories.* The paper is based on fifty cases from Professor V. A. Manassein's clinic, of which in forty, glycerin enemata, and in ten, suppositories were employed. As regards the quantity of glycerin used for an enema, in one case 1 gramme was injected; in nineteen cases, 2 grammes; in thirteen, 3; and in seven, 4. The suppositories contained invariably 2 grammes of the drug, the constituent being either gelatin or cacao butter. Forty-five patients were men, aged from 12 to 55, and five women of from 10 to 40.

In 23 cases (46 per cent.) the administration of glycerin was followed by abundant motions; in 19 (38 per cent.), by scanty stools; and in 8 (16 per cent.), no action of the bowels took place.

The first call was felt by the patient usually in one or two minutes to gradually increase in its intensity, and to be followed by a motion in three, four, or five minutes. The action was not attended or followed by any unpleasant sensations, except one case, where a rather vivid local burning was experienced by the patient for about 15 minutes.

The best results are obtained from glycerin in cases of fæcal accumulation in the rectum.

In cases of fæcal stagnation occurring higher up (typhlitis, general intestinal catarrh, etc.) the drug is altogether useless. Glycerin enemata or suppositories are indicated especially as a means for 'training' the rectum—that is, for exciting regular rectal 'calls'—in cases of habitual constipation; in cases of constipation caused by fæcal accumulation in the large bowels and depending upon atonic state of the intestinal muscular coat, such as occur most commonly in women after parturition.

* Dr. Polübinsky, when reviewing the literature on the subject, quotes the following papers: 1. Anacker, Deutsche med. Wochensch., No. 37, 1887; 2. Report of the Landes-Medicinal Collegium on Oidtman's patented 'Purgativ' in the München. med Wochensch., No. 49, 1887; Otto Selfert, ibid., 1888, p. 116; 4. St. v. Vamossy, Wiener Med. Presse, 1887, p. 1642; 5. Cadogan Masterman, Brit Med. Jour., Jan. 21, 1888 (with a noteworthy reference to Dr. Warden, who was treating constipation by glycerin more than seventeen years ago); 6. Novotny, Pester med-chir Presse, No. 13, 1887; 7. Subbotic, Centrabl. für Gynecologie, No. 27, 1888; 8 Relsinger, Prager med. Wochonsch., No. 22, 1888; 9. Ullmann, Centralbl. für die gesammte Therapie, 1888, August; 10. Boas, Deutsche med. Wochensch., 1888, p. 469; 11. Sauter, Pharmac. Zeitung, 1888, p 49'; 12. Heck, ibid., Sept. 12; Ger. Haecker, Therap. Monatshefte, 1888, p. 425. Dr. Polübinsky's list may be supplemented by the following papers and notes: 1. Jul Althaus, Brit. Med. Jour., vol. ii., 1887, p. 1379; 2. J. A. Wilson, ibid., 1888. Jan 21, p. 168; 3-4. C. J. R. Mc Lean and W. Prowse, ibid., Feb. 25, p. 449; 5-6 J. Bunting and C. Palmer, ibid., March 10, p 569; 7. W. Barrett Roué, ibid., June 16, p. 1281; 8. G. Grewcock, ibid., Dec. 22, p. 1424; 9. J. Davison, ibid., Jan. 12, 1889, p. 111; 10. J. V. Harle, ibid., Feb. 2, p. 241; 11. Kroeli, Therap. Monatshefte, 1888, p. 11; 12. G. Rice, München. med. Wochensch., No 1, 1889 (glycerin enemata are recommended as a means for diarrhœa and rectal prolapsus in children); 13. G A Carpenter, Lancet, 1888, Nov. 10, p. 905; 14. I. S Kolbasenko, Rüsskaia Meditzina, 1888, No. 49, p. 623.

Since intestinal atony in such patients is usually accompanied by a similar state of the abdominal muscles, a systematic employment of glycerin enemata must be supplemented by daily abdominal gymnastics, proper dietetic regulations, etc. In cases in which the rectum and sigmoid bowel are mechanically compressed by pelvic tumors (including early pregnancy); in retroversion of the uterus associated with pressure on the rectum; in children suffering from scrofula of a torpid variety; in such persons who experience difficulty and pain on defecation because of their fæces being very hard, and who accordingly often abstain from stools—here glycerin proves useful, mainly as a local lubricant.

It is related that enemas of glycerin were first rendered popular in Europe by a celebrated quack who sold for the purpose a syringe and a bottle of impure glycerin. His success in relieving constipation led to an analysis of his preparation and the substitution for it of a purer glycerin, and ultimately to the introduction of glycerin suppositories which are now the most convenient form of securing the effects of this remedy.

THE CONDUCT OF MEDICAL EXPERTS BEFORE JURIES.

At a recent meeting of the Society of Medical Jurisprudence and State Medicine of New York, JUDGE WILLARD BARTLETT, of the State Supreme Bench, presented a paper upon "Some Relations of Scientific Experts to the Administration of Law."

Some suggestions were offered as to the conduct of medical experts before juries, and the judge undoubtedly voiced the general opinion of the medical profession, that it is unwise for the expert to act in the double capacity of witness and adviser of the counsel of one side. No matter how careful and just the evidence, the jury is apt to regard the testimony as prejudiced.

The attitude of the physician acting as an expert should be, "as nearly as possible, one of absolute impartiality between litigants; and he should be actuated solely by a desire to be true in his statements of fact, and sound in his expressions of opinion." Many are placed at disadvantage by cross-examining counsel because of apprehension that they may prejudice the case of the party by whom they are employed, but JUDGE BARTLETT insists no expert has anything to fear "*who understands what he is testifying about, and does not testify about what he does not understand*, providing he is willing to answer fairly and candidly."

Notwithstanding the well known laxity of laws regarding the commitment of the insane, the judge emphatically remarks he knows of no good reason for supposing a single really sane person to be held in restraint within the state of New York.

"It has been urged," he continued,

"that a physician who possesses merely the statutory qualifications, is really not qualified at all to say whether a person is insane or not, and that laymen could form an opinion just as valuable. But probably very few cases occur in which a certificate of lunacy is given by a physician who does not know something more about insanity than is necessarily implied in the simple statement that he has practised medicine three years. And it is to be observed that the certificate of which we are speaking is not a final determination that the person whom it concerns is insane. It is more like a complaint containing a statement of facts which, if true, authorize a temporary detention, at least, of the person against whom the complaint is made. The law contemplates a further inquiry into the mental condition of the alleged lunatic, either by a commission de lunatico inquirendo, the medical member of which can be a specialist, or before a jury in open court, where specialists can be called as witnesses. In view of the purpose of the certificate, the requirement that it must be concurred in by two physicians and approved by a judge, and the fact that it is not final or conclusive, I doubt the expediency of changing the law so as to demand evidence of greater special knowledge on the part of physicians before permitting them to act as examiners in lunacy. The popular distrust of the management of lunatic asylums, however, has always been so great, and the horrors attending the incarceration of a sane person in a madhouse appeal so vividly to the imagination, that the state could well afford to do something to assure the public from time to time that none but lunatics are prisoners in these institutions. This might be accomplished through the supervision of the courts, to whose care the interests of all persons of unsound mind are expressly committed by statute. If in each of the judicial departments into which the state is divided the Supreme Court were empowered to appoint a qualified expert in insanity every year, whose duty it should be personally to examine every person imprisoned as a lunatic within that department, and report the results of his examination to the court, it would be rendered tolerably certain that no abuses were being perpetrated, and the assurance would be worth all it might cost in the way of compensation to the physicians for their services."

The suggestions above embodied appear worthy of extended consideration. Yet under the laws of Michigan there is not the least doubt attempts have been made, perhaps successful ones, to incarcerate sane persons in our asylums. We know of one case that was refused at the asylum because of evident sanity, though the commitment was on the strength of the certificates of two physicians of supposed reputability. And recently we heard the leader of an obscure religious sect, who has driven his wife to the border of lunacy by his neglect and notorious liaisons with the females of his flock, boast he would send her to the asylum as soon as he could obtain control of the property vested in her name, and that two physicians had signified their willingness to assist. For the credit of the profession at large, we trust this is untrue. Yet we cannot conceal the fact that opportunities for such nefarious work are available.

Again, an attempt was recently made to cheat the claims of justice in the case of a counterfeiter, by his friends, who secured certificates of lunacy from two irregulars, presumably for a consideration. Under the existing medical

law no standard is required of the physician giving testimony in cases of supposed insanity, and the charlatan and the educated practitioner stand on equal footing as experts before a jury. That the existing methods of commitment have not more generally been abused, is due to the sterling good sense of the probate judges, who fortunately possess discretionary power in the selection of experts.

JUDGE HILLIARD, commenting upon JUDGE BARTLETT'S paper, alluded to suits for damages and the relations of physicians thereto, and offered some suggestions pregnant with truth. He believed the purpose of such suits ought to be *to develop the actual facts*, but in general it was a grab for money. The courts became simply fencing exhibitions between lawyers, lawyers and physicians, and between physicians, to the general discredit of all concerned; and a little more honesty and manhood displayed by the members of both professions in such cases would not be at all amiss.

THE ELECTRICAL TREATMENT OF SEWAGE.

It is reported (Medical Press and Circular) that the experiments in the electrical deodorization of the London sewage, which were carried out recently under the superintendence of the inventor, were highly promising.

It is stated that the cost of dealing in this manner with one millon gallons of sewage would only amount to thirteen shillings. This low figure, of course, would be a very strong point in favor of the scheme, especially when it is remembered how vast has been the outlay sanctioned for the chemical treatment of sewage.

Enough has been shown to establish the practicability and utility of the electrical treatment of sewage, and we may earnestly hope that the difficult problem of effectually disinfecting will not now be far off from being solved.

Electricity is becoming daily more and more an indispensable commodity to modern civilization, but if by its means we are enabled to purify sewage, it will have decided one of the most urgent questions in connection with the growth and development of cities.

A NEW ALIMENT.

DR. DUJARDIN-BEAUMETZ recently exhibited at the Academy of Medicine a new alimentary substance, "fromentine," which is obtained from wheat by the aid of special mill-stones. Fromentine is the embryo of the wheat reduced to flour. It contains three times more nitrogenous substance than meat, and a strong proportion of sugar. Hence it would appear that it might advantageously replace powdered meat as a concentrated food.

Book Notices.

THE PHYSICIANS' LEISURE LIBRARY, DISEASES OF THE KIDNEYS, by Dujardin-Beaumetz, M. D. Translated from the Fifth French Edition by E. P. Hurd, M. D., Newburyport, Mass.

This work is a very valuable addition to medical literature, and will prove of great utility to the practitioner. The contents are systematically arranged; the facts bearing on the anatomy, pathology and symptomology of kidney diseases are lucidly presented; and there is given, beside, a luminous digest of all that is known pertaining to the subject, capital suggestions, interspersed throughout its pages, which will excite profitable reflections in the mind of the reader. This little volume is essentially a clinical work which may be consulted by the practitioner whenever in need of light or instruction, with the conviction that he will find therein invaluable, practical information.

The chapter devoted to the anatomy of the kidney, to the urine and its physiology, the method of determining the presence and amount of its constituents, and due significance of the changes which they present, is an admirable one for clearness and conciseness, as well as for reliability. The able manner in which the subject of the differential diagnosis of the several forms of Bright's disease is handled, leaves little to be desired, and the same may be said of its treatment.

In fine these lectures of DUJARDIN-BEAUMETZ are almost beyond the reach of criticism, from a theoretical or practical point of view, although as regards style perhaps inferior to some of the classical works of the French school of medicine. This physician is one of the most learned, acute and painstaking observers of the day and one of the best teachers as well, pursuing inquiries in a most original and scientific manner. And his experiments have yielded results of incalculable benefit to humanity at large. In addition, we may state, we know no one ourselves, who has the gift in a greater degree of presenting such concise and clear digests of the ripest thoughts of other eminent authors. We do not believe we exaggerate when we say there is hardly a physician in this country who reads the medical journals, but is eager to take cognizance of all falling from the lips of this master.

The work itself and the translation, both maintain the reputation of author and translator alike. DR. HURD is not only an able translator, but he generally enriches the works he translates with observations of his own, and he also introduces appropriate selections from our best writers. This gives additional value to the works which have been entrusted to him for translation. Several important addenda will be found in this work for which we desire

to express our gratitude to the doctor. We cannot too strongly commend our readers to purchase this very valuable treatise.

PROSPER BENDER, M. D.

A TREATISE ON HYSTERIA AND EPILEPSY—Including Observations on Epileptic Insomnia. By J. LEONARD CORNING, M. A., M. D., etc. Geo. S. Davis, Publisher, Detroit, Mich. 1888. Pp. 176. Price 25c.

The comprehensive title of this brochure is indicative of its contents and purposes.

The symptoms of hysteria are so heterogeneous and multitudinous as to almost defy exact description, while adequate definition is practically impossible. That a large proportion of the manifestations of the malady are attributable to functional derangements of the central nervous system is certain, while not a few of the phenomena arise from psychic causes; and for these reasons the author takes ground that like manifestations in the sterner sex are entitled to the same classification as when observed in the female.

Undoubtedly the premises drawn are correct: and of late hysteria in the male has received no small amount of attention from neurologists, though usually without sufficient care in differentiating true hysterias from simulated hysterias dependent upon cerebral exhaustion. DR. CORNING calls especial attention to this fact, remarking the classification of the latter with the former is manifestly improper. It is admitted, however, that it is oftentimes exceedingly difficult for the practitioner to determine whether the case presented is one of hypochondriasis due to cerebral exhaustion, or merely hysteria dependent upon cerebral irritability, in which case the diagnosis must depend upon predominant characteristic symptoms.

In many instances it is impossible to draw the line between epilepsy and hysteria. Epilepsy, however, aside from traumatic influences, is most likely to be a hereditary neuropathic malady, even though it skip one, two, or more generations. DR. CORNING, while laying especial stress upon the necessity for obtaining precise and definite family history, yet considers the existence of marked neuropathic diathesis as sufficient evidence in itself.

The subjects are well handled, the author possessing the rare ability of conveying a maximum of information in a minimum of space, and we bespeak for the work an extensive circulation. It is to be regretted, however, that, in the recommendation of the bromide treatment, the fact was not noticed that such is physiologically objectionable in epilepsies, or false hysterias, dependent upon or conjoined with cerebral anæmia—it is only in a hyperæmic condition that bromides are of practical value.

BRIGHT'S DISEASE OF THE KIDNEY. By Alfred L. Loomis, M. D., LL. D., etc Published by Geo. S. Davis, Detroit. 1888. 25c.

This, No. 6 of Series III of the Leisure Library, is an admirable work of 117 pages from the pen of an author well known to the profession as an authority upon Bright's disease, and as a writer of numerous carefully prepared papers on kindred subjects.

DR. LOOMIS describes *morbus brightii* under three heads: 1. Parenchymatous nephritis, frequently denominated tubular, diffuse, catarrhal, croupous, desquamative or glomerular; 2. Interstitial nephritis, in which the inflammatory changes affect primarily and especially the connective tissue elements—which induce cirrhotic, gouty, or "drunkard's" kidney; 3. Amyloid degenerations, in which a peculiar development induces inflammatory changes of both cirrhotic and parenchymatous forms.

This classification, better than any other, represents the pathology of the disease, and further explains what every clinician should understand, that fine divisions between extremes are of little practical value, since two cases rarely present similar aspects, and it is only the preponderance of, or tendency toward, one or the other form, that determines the precise character of the malady.

For clinical purposes, the author describes a *simple*, *acute*, and *chronic* form of the disease, and in each instance the pathology, etiology, and management are explained in a concise but most lucid manner. From the fact, *morbus brightii* is a subject of constantly increasing importance, being found year by year of more and more frequent occurrence, this little manual which arrives at the practical portion of the diagnosis and treatment without circumlocution, and with all the power and simplicity of statement that characterizes the eminent author, cannot fail to secure a large circle of readers.

A CLINICAL ATLAS OF SKIN AND VENEREAL DISEASES—Including Diagnosis, Prognosis and Treatment. Parts V and VI. By ROBT. W. TAYLOR, A. M., M. D., etc. Published by Lea Brothers & Co., Philadelphia. 1889.

Two parts each contain six full-page illustrations in colors, and with the text treats of the different forms of pediculosis, erythema, tinea, pityrasis, impetigo, pemphigus, urticaria and ecthyma; also lupus erythematosus and herpes zoster.

The material embraced in the text is good, the typographical work superb, but the plates, as is usual with lithographic representations, are a trifle too highly colored. Doubtless the work will be of value to those who have been denied clinical opportunities for observation, but the same fault obtains that attends most works of this class, viz, the illustrations present only extreme and markedly definite cases

in each class, whereas the general practitioner has to deal mostly with those of indefinite and obscure characteristics. We question the propriety of perpetuating the title prefix of *lupus* as arbitrarily applied to chronic superficial infiltrations of the skin.

However, the purchaser will have no reason to regret the outlay.

SURGICAL BACTERIOLOGY. By NICHOLAS SENN, M. D., Ph. D., etc. Philadelphia, 1889: Lea Brothers & Co.

In something less than 300 pages DR. SENN has given in most respects a useful, and in all respects a concise, readable and interesting work on surgical microbes. Apparently nothing has been omitted which is necessary to imparting a fair knowledge of the subject. Within a recent period bacteriology has revolutionized surgical pathology and surgical procedures, hence a proper recognition of the influence of the various micro-organisms is a *sine qua non* to the science and practice of surgery. The illustrations, thirteen in number, are reproduced from Lehrbuch der Pathelogischen Anatomie, by PROF. KLEBS, of Jena.

The work is a most commendable one, and is well indexed, both by author and subject.

MEDICAL AND SURGICAL MONOGRAPHS. Vol. II, No. 1. April, 1889. Published by Wm. Wood & Co., N. Y. Pp. 304. Price $1.00.

This number contains "Diabetes and its Connection with Heart Disease," by JACQUES MAYER, M. D., and "Blenorrhœa and its Complications," by DR. ERNEST FINGER.

The first embracing 29 pages presents nothing new, and the author has fallen into the error, apparently, that he is the first to observe the connection of diabetes with heart disease.

The second part of the volume is far more valuable, and really a useful compilation—it is little else. Its value would have been enhanced by further condensation.

AMERICAN RESORTS, WITH NOTES UPON THEIR CLIMATE. By BUSHROD W. JAMES, A. M., M. D., etc. Pp. 285. F. A. Davis, Philadelphia, publisher.

Although "intended for invalids or those who desire to preserve good health in a suitable climate," as announced upon the title page, the work is of no practical utility, being merely a compilation from guide books, and perpetuating their errors of geography, topography and orthography. The information afforded as to climates and meteorological conditions is valueless, and the only readable portion of the work is the 96 pages of translation from *Die Klimate der Erde*, by DR. WŒIKOF.

VEST POCKET ANATOMIST. By C. HENRI LEONARD, A. M., M. D., etc. Published by Illustrated Medical Journal Co. 14th revised edition. Pp. 296. Price $1.00.

The number of editions this work has passed through speaks for its value: and though it has grown in size to exceed the average *vest* pocket, its utility, far from being impaired, is increased.

TRANSACTIONS OF THE MEDICAL SOCIETY OF VIRGINIA. 19th Session. Norfolk, 1888.

A volume of more than 300 pages replete with interesting matter. Of especial value is the paper by DR. LEWIS G. PEDIGE, of Roanoke, on the "Antagonism of Amyl Nitrite and Acid Hydrocyanic"

MICHIGAN MANUAL, 1889. State Press, Lansing.

The value of this work is too well known to demand comment.

Notes and News.

Commencement Exercises of the Detroit College of Medicine.—The Detroit Opera House was fairly filled on the evening of March 25th, to witness the graduating exercises of the class of 1889 of the Detroit College of Medicine.

Sidney D. Miller, president of the college, made a brief historical address and then introduced Bishop John Foley.

Prior to the exercises, the fourth annual meeting of the alumni association was held at the college. Annual reports were read by the retiring officers and Dr. H. B. Pettingill, historian, made a very able address. The following officers were chosen for the ensuing year: Dr. E. C. Skinner, president; Dr. J. G. Hands, vice president; Dr. W. J. Cree, financial secretary; Dr. C. C. Yemans, historian.

Prof. H. O. Walker then read the following list of gradnates:

J. C. Austin, Ontario; Thos. Bourque, New Brunswick; W. W. Barkwell, Ontario; W. S. Bookwalter, Pennsylvania; H. D. Brown, Michigan; A. G. Burwell, Ontario; Harry J. Hartz, Michigan; J. G. Hands, Ontario; W. W. Keirstead, Ontario; W. Kernaghan, Ontario; Daniel Kerr, Ontario; Richard R. Lansing, Michigan; R. A. Newman, Michigan; W. I. Powers, Michigan; H. M. Ptolemy, Ontario; M. E. Roberts, Michigan; Arthur L. Reed, England; Tobias Sigel, Michigan; C. F. Cooke, Ontario; N. E. Cornell, Ontario; D. B. Cornell, Ontario; C. W. Clark, Ontario; Thos. Darling, Ontario; H. F Dwyer, Michigan; Chas. W. Ellis, Michigan; Edward Fee, Ontario; Louis Fleckenstein, Ontario; W. A. Mack, Michigan; N. S. McCready, Ontario; J. W. McCulloch, Halifax; P. J. McHugh, Ontario; F. J. J.

McHugh, Ontario; Duncan McLarty, Scotland; J. B. McMillan, Ontario; Joseph McNeece, Quebec; Arthur Meek, Ontario; George W. Tape, Ontario; W. H. Webster, Ontario; Geo. Weir, Ontario; M. M. Wilson, Jr., Ontario; W. K. West, Michigan; Frank Wenz, Michigan; M. L. Weston, Michigan.

Sidney D. Miller, president of the college, administered the Hippocratic oath and conferred upon each the degree of doctor of medicine. Dr. E. C. Skinner, president of the college alumni association, presented the scholarship prizes of the alumni association. The first was awarded to H. M. Ptolemy, of Ontario, and the second to R. A. Newman, of Michigan.

Dr. David Inglis made the address of congratulation to the class, and the faculty and newly-made physicians repaired to the Light Infantry armory.

THE BANQUET.

At the armory nearly 400 guests sat down to the banquet at about 10 o'clock, comprising the graduates, the members of the alumni association and a few invited guests. The menu was very choice and the four long tables were brilliant with flowers and fruit of every hue. Prof. J. B. Book and Prof. A. E. Carrier, alternated as toastmasters.

THE TOASTS.

"The Detroit College of Medicine," was proposed and responded to by Eugene C. Skinner, M. D.

Rev. Lee S. McCollester, of the Church of Our Father, responded to the toast "Faith."

W. I. Powers, of the graduating class, made a very happy valedictory address.

Hon. C. J. Reilly, responded to the toast, "Our Profession."

H. J. Van Loon, of the class of '90, responded to "A College Joke to Cure the Dumps," and Rabbi Louis Grossman to "The Poetry of Science."

Hon. Edwin F. Conely closed the speaking with a response to the toast "Ambition."

A Nut for Editors to Crack.—We think the guardians of the Medical Press can recall from their experience similar correspondence to the following reported in the *Medicinische Monatshrifte* for March '89.

Mr. P. R——r, M. D., Hamburg, Ills. You have sent us three communications during the last six weeks, and desire that we forward to you the numbers containing your printed articles. You send us reports from practice, from which we observe that you are in position to "turn back lung fever already in progress," and, in the case of a patient suffering from intermittent fever, after administering eight different useless medicaments, of "applying to the stomach an ever successful liniment poured upon a cloth folded several times, then applying several newspaper sheets and placing flannel on top of all." You then had fat, as warm as possible, rubbed in; you then applied a warmed mustard plaster covered with opium, then a small bag of clover and hops, and as these did not help, you prescribed a hot iron and at the same time a foot bath. You do not wish to subscribe because you contemplate returning to your former avocation—the cure of souls, and in conclusion you send us six closely written pages full of counsel for the editing and equipping of our journal. With reference to your report from practice, we can only express our regret that you did not have your patient photographed during treatment. The hot iron on the bag of hops, the mustard plaster, the flannel, the several sheets of newspaper, the cloth saturated with the efficacious liniment, and finally at the bottom of the heap the poor patient with her feet in a mustard bath—would have furnished an interesting picture. Without such a picture—at least here in the East—no reader would regard your report as authentic. We rejoice at the vigorous vitality of your patient, and over the fact that you will soon devote your attention to the souls of men. We congratulate all concerned.

An International Congress of Therapeutics and Materia Medica will be held at Paris, from August 1 to 5, 1889, in the hall of the Sociétés Savantes, No. 28, Rue Serpente. All physicians, pharmacists and veterinary surgeons, sending in their names, and paying the assessment of ten francs (two dollars), will be permitted to take part. The Congress will be divided into two sections: one on therapeutics and the other on materia medica.

The committee of organization is composed as follows: Drs. Moutard Martin, president; Dujardin-Beaumetz, vice-president; Constantine Paul, secretary general; P. G. Bardet, assistant secretary general; Labbe, secretary of the section of therapeutics; R. Blondel, secretary of the section of materia medica.

The following subjects will be discussed:

1. The antithermic analysis. M. Dujardin-Beaumetz, reporter.

2. The antiseptics proper for each species of pathogenic microbe. M. Constantin Paul, reporter.

3. Heart tonics. M. Bucquoy, reporter.

4. The new drugs of vegetable origin recently introduced in therapeutics. M. Planchon, reporter.

5. Unification of weights and measures used in formulas; the advantages of an international pharmacopœia. M. Shaer, of Zurich, reporter.

An exhibition of drugs will be held during

the session of the Congress in the same building, and under the direction of DRS. ADRIAN and BLONDEL.

All communications should be addressed to DR. BARDET, Assistant Secretary general of the Committee of Organization, No. 119 bis, Rue Nôtre-Dame-des-Champs, Paris, France.

Anatomical Epitaph on an Invalid.—

Here lies a head that often ached,
Here lie two hands that always shaked,
Here lies a brain of odd conceit,
Here lies a heart that often beat,
Here lie two eyes that daily wept
And in the night but seldom slept;
Here lies a tongue that whining talked,
Here lie two feet that feebly walked,
Here lie the midriff and the breast
With loads of indigestion pressed;
Here lies the liv-r, full of bile,
That ne'er secreted proper chyle:
Here lie the bowels, human tripes
Tortured with wind and twisting gripes;
Here lies that livid dab, the spleen,
The source of life's sad tragic scene,
That left-side weight that clogs the blood
And stagnates nature's circling flood.
Here lie the nerves, so often twitched
With painful cramps and poignant stitch,
Here lies the back, oft racked with pains,
Corroding kidneys, loins and reins;
Here lies the skin by scurvy fed
With pimples and eruptions red.
Here lies the man, from top to toe,
That fabric framed for pain and woe;
He catched a cold, but colder death
Compressed his lungs and stopped his breath;
The organs could no longer go
Because the bellows ceased to blow.

—*Annual Register*, London, 1768.

Nursing Infants with Asses' Milk. — The public charities of Paris, says the Scientific American, under the advice of the physicians, have substituted for the milk of goats that of asses, and have installed an ample yard near the pavilion of the rickety and scrofulous children, which is separated only by a short covered passage-way. A very picturesque scene is the spectacle of the lactation of the infants in this enclosure every morning. The women that have charge of the animals hold the children in such a position that they can suckle the docile animals, which they do with avidity. The administration d' Assistance Publique has calculated that one young ass is able to lactate abundantly for nine or ten months.

Death Ascribed to Condensed Milk.—An infant recently died at Bermoudlesy, England, in convulsions, occurring shortly after being fed with condensed milk. The physician who was called said that the convulsions were doubtless brought on through the child being unable to digest the milk. The food was very dangerous to be given to young children, he said, in consequence of the sugar and other articles used in its manufacture. Several similar deaths had occurred lately through its use.—*Circular*, April, 1889.

Meeting of the National Association of Railway Surgeons.—The annual meeting of the National Association of Railway Surgeons will be held at St. Louis, Mo., on Thursday and Friday, May the 2d and 3d, 1889.

Dr. W. B. Outten, of St. Louis, is the chairman of the committee of arrangements, and everything will be complete for the accommodation of the surgeons.

Any information desired can be had by addressing the secretary, C. B. Stemen, M. D., Fort Wayne, Ind.

The Editor Burnt Out.—Dr. R. C. Word managing editor of the Southern Medical Record, had his dwelling, his furniture, his library, his instruments, his lecture notes, the MS. of a work nearly ready for the press, and other valuable papers—the labor and accumulation of years—suddenly swept away by fire on the 16th inst.

Therapeutic Brevities.

Use of Menthol Internally.—The Wiener Klin. Wochenschrift of March 7, 1889, states that menthol, which, on account of its great anodyne action, has been largely used as a local application, has of late been administered internally as an antineuralgic in hemicrania, infraorbital neuralgia, and headache, as well as for the relief of the pain of rheumatism and sciatica, in doses of from 4 to 15 grains.

Dr. MacLaury (Therap. Gazette) gives the following prescriptions for the administration of this preparation:

℞ Alcohol ʒ j.
Menthol ʒ ij.
Glycerin,
Simple syrup; āā ʒ j.
M. One teaspoonful in warm water when required.

℞ Menthol ʒ j.
Sugar of milk grs. ix.
M. Administer in 12 capsules; one or two capsules to be taken daily.

Menthol can also be combined with antifebrin and antipyrin, as in the following:

℞ Menthol,
Antifebrin, āā ʒ j,
Sugar of milk, q. s.
M. To be divided into 24 powders, administered in capsules; two capsules to be taken daily.

A Simplified Method of the Cold Water Treatment of Fever.—Dr. Placzek (Virch. Arch., cxv) has of late taken up this treatment, at first advocated by Preyer and Flasher, in 1884, and by Hiller in 1886 the latter having successfully used it in treating soldiers suffering from sunstroke. This treatment consists in spraying

the entire body surface with water until a fall of temperature is obtained.

In an animal with high temperature, Dr. Placzek succeeded in reducing the same two degrees by spraying the body with one and a half pints of water of from 53° to 59° F. and immediately after with three ounces of 95° F. The after-spraying with water of a higher temperature dilates the capillaries, and this induces a consequent loss of considerable body heat.

Thus in a tuberculous subject whose evening temperature would at times reach 104°, the author reduced the same to normal by using somewhat over one pint of water of from 59° to 66° F. The temperature was with ease kept for four hours at this standpoint, and this gradually allowed to rise, but not allowed to reach its former high standing.

Compared to the ordinary method of bathing, this treatment has the advantages of simplicity and comfort, factors not to be disregarded in private practice. The patient simply remains in bed, coverings and shirt are removed, a rubber or wax-cloth laid under him, and the *modus operandi* proceeded with. As each application does not require more than twenty-five minutes, it can be repeated several times daily.—*Prager med. Wochenschrift*, March 20, 1889.

Influence of Alcoholism on the Production of Pulmonary Tuberculosis and Cirrhosis.—Alison publishes in the Archives de Médicine, a paper based on numerous personal observations in which he shows that what is most to be feared in persons addicted to alcoholic excesses who lead an active life and live in the midst of consumptives, is not cirrhosis of the liver, so frequent, as is known, among sedentary persons who are hard drinkers, but pulmonary tuberculosis. This is the result of fifty-eight observations of individuals in advanced phthisis, men that had been hard workers in the open air, principally farmers; of this number, eighteen were notoriously of intemperate habits.

On the other hand, it was noted that in sedentary persons given to intemperance, cirrhosis in the more common termination of alcoholism.

Cirrhosis was found to be exceedingly rare among country people, living much of the time in the open air and pursuing a laborious occupation, while it was very common in persons leading an indoor life.

If these observations may be relied on, a practical conclusion follows that persons predisposed to organic affections of the liver should perform much hard labor out of doors, or take abundant exercise of the nature of walking, horse-back riding, rowing, etc.

Antiseptic Vapors in the Treatment of Diphtheria.—Dr. Daniel Paterme (Bull. gén. de Therap., vol. 38) bases this mode of treatment on the assumption that diphtheria is at the beginning a general affection, and that local symptoms always follow the primary general infection. Diphtheria demands therefore not a local, but a general antiseptic treatment.

The mode of treatment advocated by Dr. Renon would thus be in place here, which is: 1st. Saturating the inspired air with steam which has been thoroughly impregnated with antiseptic substances. 2d. A nourishing diet and the administration of tonics such as quinine. 3d. Not touching the throat at all.

Renon uses as an antiseptic a solution of carbolic and salicylic acids in alcohol; of this one tablespoonful is added every three hours to four pints of boiling water.

The cases treated by the author were: Thirty cases of diphtheria of the respiratory passages, 29 with croup, with 24 recoveries and 6 deaths; 23 tracheotomies with 18 recoveries (amongst the latter were 3 infants aged eleven, twenty-one and twenty-four months respectively).—*Centralbl. f. d. ges. Therapie*, March, 1889.

What Medicines may be Given to Nursing Mothers.—Fehling has opened an important field of inquiry, by a series of experiments to determine what drugs may be safely given to nursing mothers. He found that salicylate of sodium was dangerous to the infant when given to nurses in doses as large as forty five grains daily. Iodide of potassium may be given in doses of three grains daily. Iodoform enters the system of the infant more readily through the nurse than when given to the child. Even when the wounds of the mother were dressed with iodoform, iodine was found in the child's urine. He found that mercurial salts given to the mother affect the child very slightly, if at all, and that twenty five drops of tincture of opium (German Pharmac.) and one-tenth to three-tenths of a grain of morphia could be safely given to the mother. Chloral may be given in doses of twenty-three grains to forty-five grains. Atropine affects the child very quickly, even in small doses. He denies that salads and acids have an injurious effect on the child.—*Medical Press*, March 20, 1889.

Pengawar Djambi.—A few years ago there was considerable enthusiasm aroused over a new hemostatic, which was composed of the hairs from the stems of certain ferns which grow profusely in that country, and known by the euphonious name of "pengawar djambi."

In the London Medical Record recently appeared a paper from a physician who had had considerable experience with the substance as a local application to bleeding wounds during the Franco-German war.

This, and all other observation, proves that the agent is superior to almost any other application in causing immediate coagulation and plugging of bleeding vessels. The remedy is not irritating or poisonous, and is as effectual in arterial hemorrhage as in venous hemorrhage. A thin layer of the substance is laid over the wound, and the effect is almost instantaneous. It can be easily removed, as it "does not become matted, or clog or stick to the wound."—*Chicago Med. Times.*

Jurubeba (*Solanum Paniculatum, L.*)—In Brazil, a number of the species of the genus solanum have been in use for ages as supposed remedies. Of these sol. paniculatum, L., is the best known. The plant and its preparations were also abundantly represented at the South American Exposition, held at Berlin in 1886, and it has here become known through Parke, Davis & Co., and the fluid extract of the drug

introduced to the market. In order then to determine the efficacy of the plant, used and recommended in Brazil for many diseases, Prof. Dr. Kobert, of Dorpat, *at the suggestion of Parke, Davis & Co.*, investigated the fluid extract pharmacologically. As a result, he ascertained that the jurubeba is perfectly inert; the drug contains neither a glucoside nor an alkaloid.—*St. Petersburg Med. Wochenschrift*, 1889, No. 1.

Antiseptic and Analgesic Cotton for the Dressing of Wounds.—Dr. Eller (Revue gén. de Clin. et de Thérap., March 7, 1889) recommends the following as an analgesic and antiseptic mixture:

℞ Cocaine hydrochlorate, 3 parts.
Water, 60 parts.
Boric acid, 6 parts.
Glycerin, 8 parts.
Carbolic acid, 2 parts.
M.

Dissolve the cocaine in the water, and the boric acid in the glycerin; then mix these together and add the carbolic acid.

This preparation serves to render antiseptic as many ounces of cotton as ounces of water have been used. The cotton thus obtained serves as a dressing for burns.

Treatment of Acute Tonsillitis in Children.—According to Potter (Med. Press), the first indication in acute tonsillitis is to combat the fever; and for this object he prescribes antifebrin in doses of 3 or 4 grains every hour till the temperature becomes normal. If the depressing effect of this medicine is feared, aconite or antipyrin may be substituted.

To meet the second indication, *i. e.*, to alleviate the pain, which this writer thinks is caused by acidity of the secretions, he prescribes sprays and gargles of bicarbonate of soda. He adds that by this treatment, complete recovery may be expected in from one to three days.

How to Disguise the Bitterness of Quinine.—To mask the bitter taste of quinine, Hugo Engel recommends a combination of this alkaloid with sal. ammoniac and licorice, according to the following formula:

℞ Quiniæ sulph., 1 part.
Ammonii chloridi, 1 part.
Pulv. glycyrrhizæ, 4 parts.

Mix thoroughly the two latter substances, previously reduced to powder, incorporate with them the sulphate of quinine, and make an electuary with a little syrup or honey.

Drawbacks of Creolin.—Among some of the drawbacks of this new antiseptic are that its mixtures with water are not transparent, and as a consequence the surgeon in not able to find readily the desired instrument among a number covered by the solution. It also makes everything slippery, as if covered with soap, and less easy to hold firmly.—*Therapeutische Monatshefte*, Jan., 1889.

Medical Progress.

Massage in the Treatment of Eye Diseases.—In an address upon this subject, made at the recent Cologne meeting of the German Naturalists and Physicians, Dr. Pfalz, of Düseldorf, calls renewed attention to the matter, and chides the silence of others. While Pagenstecher's recommendation of this means of treating various affections of the anterior segment of the eyeball, and especially of clearing up corneal opacities, has doubtless been widely adopted; and the ointment of the yellow oxide of mercury, commonly used as an adjuvant, is often called by his name; it is as yet a fact that not much has been written upon the subject. Many text-books make little or no mention of massage, and the matter probably lacks deserved attention.

For the clearing away of opacities in the cornea, numerous medicaments in the form of solutions, powders, or ointments, had long been employed, and among them the amorphous precipitates of mercury; but it seems to have been by Pagenstecher first that the *rubbing* was emphasized as an important element in the use of stimulating ointments; and others have proven its efficacy by omitting not only the medicament, but also the lubricant which he directed. Pagenstecher first commended its use for episcleritis and pannus; later for most slow and chronic affections of the anterior segment of the eye, except when iritis was present—involvement of the iris constituting a distinct counter-indication to its employment. This view is so far modified by Pfalz as to include chronic *plastic* iritis and its results among the conditions in which massage may be employed, after the more acute stage is passed, with safety and sometimes with marked benefit. Serous iritis seems always very intolerant of such treatment, and little benefited by it, when borne. The value of the measure in lid affections has been less noted; and while claiming for it but a limited change of application, Pfalz urges its usefulness in blepharitis, follicular conjunctivitis, and other chronic inflammations of the lids and conjunctiva, basing his views upon the anatomical disposition of the blood and lymph vessels, as well as upon clinical observation.

Theoretically, massage empties the vessels, and their refilling takes place not only from the capillaries, but also by imbibition from the tissues; while increased tone of their walls lessens the tendency to subsequent dilatation. Exudations are diffused over a wider area, and their absorption thus facilitated; while the circulation is quickened, and perhaps the trophic nerves stimulated, by the gentle irritation. Of conrse, that only certain tissues are open to such direct action of the massage, as Pfalz claims, is probably like several of the points discussed, not beyond question; such at least, is the explanation which he urges for the widening of the pupil which he observes as a result of the manœuvre.

Several cases are upon record where a sudden obscuring of the vision has disappeared after rubbing the eyes; and the nature of the case and the subsequent history made it very probable that stasis in the retinal vessels, due to embolism or thrombosis had been present and yielded to the massage. An unmistakable case

of thrombosis of a retinal artery so relieved, has just been reported by Hirschberg.

Massage has also been utilized, after Förster's method, to triturate the lens-substance of slow-ripening cataracts, in order to hasten the maturation, and also to promote the absorption of a soft cataract after discission. Probably under the same title can be included the measure advocated by Michel—passive motion of a paralyzed or paretic muscle by grasping the tendon with fixation forceps and exercising the defective muscle by gentle stretching, alternated with stretching of its antagonist. Each of these procedures has met with more or less success when conscientiously carried out in suitable cases; and the negative or unfavorable results sometimes reported may often be ascribed to the operator rather than to the measures themselves.

The great drawback to the wider utilization in many cases, is the time that it takes. While a couple of minutes is all that is usually wise to expend upon any one region, this is too often more than the surgeon is willing to give. He therefore relegates the matter to some attendant, with the result that the method, if properly applied at all, is not judiciously directed, as it must needs be in order to obtain the best results. These are potent and by no means harmless procedures, and their abuse may more than undo any good effects.

In its ordinary application to affections of the anterior segment of the globe, the lids should be gently closed and drawn a little tense by the fingers of the operator, and then *lightly* stroked by quick passes of the thumb, the index finger or a cotton pledget. For the cornea, radiate stroking of one sector at a time is the best, carried, of course, from centre to periphery; circumcorneal lesions may be rubbed by a circular motion. In the case of the lids, the movement should be from internal to external canthus along the upper or the lower margin of the tarsus, and may be continued out and down upon the cheek along the course of the vessels. So employed at intervals of from one to three days, massage acts as a decided stimulant, reddening the eye for a short time, but generally soon reducing any congestion present. Any desired medicament may be rubbed in by the manipulation, the yellow oxide ointment being a favorite. (A salve so used must be free from all gritty particles, a condition easily obtained in that of the yellow precipitate by adding an equal proportion of oleic-acid and rubbing it up with vaseline; the resulting orange-colored ointment in a few days becomes pale yellow and transparent from solution of the mercurial salt). Where the palpebral conjunctiva is the affected tissue, the everted surface of the lid may be rubbed.

As an explanation of some of the effects of massage upon corneal opacities, Pfalz points to the findings of the corneal microscope, which demonstrate in many cases tracts of vascularization, generally superficial, which are very prone to congestion upon slight cause. These he has rarely been able wholly to get rid of; but improved tone has lessened their irritability and their size has been reduced so that they and the surrounding infiltration have ceased to be so great an obstacle to distinct vision. Old cicatrices may grow little if at all thinner; yet the smoothing of their superficial roughness may lead to a marked improvement in the visual sharpness. One case which Pfalz cites seems an extreme one, where in an interstitial keratitis with involvement of the iris, which had proved very rebellious, the vision was raised in four days from counting fingers at three feet to $\frac{4}{11}$ and in twelve sittings to $\frac{8}{5}$.

The applications of massage are thus claimed to be more extensive than generally thought; and the paper of Dr. Pfalz, while decidedly enthusiastic, seems to merit careful consideration. American ophthalmic surgeons have long made some use of massage, but certainly few can claim to have given it such a test as here described, and while the results have not generally been so brilliant, and have often been ascribed to the medicament employed rather than to the manipulation, it seems well to invite renewed attention to the subject, in the hope that more extended and careful tests will confirm the claims that are urged by its advocates.—*Med. News*, Feb. 23, '89.

THE VALUE OF CORK AS A COMPRESS IN HEMORRHAGE.—The surgeon frequently finds himself at loss for a ready means of controlling certain hemorrhages which, although seemingly insignificant at first, become quite serious in a very short time. This state of things is of course more likely to occur in the experience of the country surgeon than in that of his more fortunate city brother. In any event we are quite sure that the surgeon can find nothing so convenient and reliable for controlling hemorrhages of the scalp, palmar arch, hands, feet, etc., and the oozing which often follows the too early or accidental removal of the remains of the umbilical cord, as the cork compress. The degree of resistance afforded by the cork is perhaps a little greater than that of one's finger, but the pressure secured by it is always uniform and reliable. The mode of its application is very simple. For scalp wounds a circular tap, about one quarter of an inch thick, is cut off at the end of a cork about one inch in diameter, and secured to a bandage by a few drops of ordinary sealing wax. The section of cork thus prepared is placed over the bleeding vessel, and firmly secured by passing the bandage over the head in the usual manner as often as is necessary. For umbilical hemorrhage the same description of cork and bandage is used, but the center of the cork is slightly scooped out for the accommodation of a small pledget of styptic cotton. By this means we have been able to control this very troublesome oozing when all other means known to us had failed. For wounds of the palmar arch the cork is cut in half, longitudinally, the flat surface secured to the bandage by a few drops of sealing wax, and the circular or rounded side pressed firmly along the course of the artery on the proximal side of the wound. The bandage is then passed firmly around the wrist often enough to secure the desired amount of pressure upon the wounded vessel. In the same way the compress is applied in wounds of the hands and feet. Patients never complain of any discomfort from the pressure thus applied.

Our experience with this simple method of compression prompts us to recommend it as a safe and efficient means of controlling superficial hemorrhages of every description where ligation is unnecessary, inconvenient or not desired.—*International Jnl. of Surg.*, March, 1889.

The Medical Age.

Vol. VII. DETROIT, MAY 10, 1889. No. 9.

Original Articles.

A NEW TREATMENT OF DIPHTHERIA.

BY DR. E. GAUCHER.*

In proposing a new treatment of diphtheria, one runs quite a risk of meeting nothing but incredulity. Therefore it was not till after much hesitation that I decided to publish this communication; perhaps I should not have undertaken the publication, had I not been after a manner invited so to do by the excellent review which my friend, DR. LE GENDRE, has caused to appear in the Archives of Laryngology. DR. LE GENDRE has made known my method of treatment along with two cases of whose management and cure he was witness. I desire to complete the data contained in the article cited, indicate the principal points of the therapeutic method which thus far has given me almost unvarying success, and allude to the theoretical notions of which this treatment is only the application.

We find it everywhere asserted that diphtheria is a general infectious disease; many authorities even affirm that it is a general disease at first. This view was prevalent a few years ago; I was taught it by ARCHAMBAULT at the *Hôpital des Enfants Malades* when I was interne in 1879. Now there is no doubt as to the infectious nature of diphtheria; but that this infection is *general at first*, I do not believe. It is first local, then general. The infection diffuses itself very rapidly, I admit; but, after all, diphtheria, grave or benign, is not a general infection, but a *generalized infection*.

I do not here provoke a quarrel of words. There is a great difference between these two ways of representing the diphtheritic infection; there is a greater difference still between the therapeutic conclusions which force themselves upon us in connection with the two views. If diphtheria is a general disease at first, it is evident that all the efforts which we may direct against the local disease will have little or no efficacy, and that it is the general state which demands especial attention, and this from the very outset. What good to destroy the false membranes if there exists an internal cause which brings about their speedy reproduction; if the angina is the only result and manifestation of the infection?

But if, on the contrary, the angina be the *primitive accident* of the malady—if it be the source of the infection, instead of being the consequence—it is this which we should treat with the greatest energy, for, in destroying the false membranes, we attack the very cause of the secondary infection.

In my opinion, the second theory is the correct one, and these are the grounds on which I base my view:

First—It is a fact, that we often witness [benign attacks of diphtheria without general] infection, or with tardy infection, and diphtheritic patches localized in the throat during the whole or during the greater part of their duration.

I find another argument in the primary seat of the pseudo-membranous exudation, which may be other than the pharynx. It is not always in the throat that the diphtheritic germ finds lodgment. Ordinarily, indeed, diphtheria begins in the throat, because this common vestibule of the respiratory and digestive passages is the most exposed to germs coming from the atmosphere; but there are primary diphtheritic stomatites; there are croups at the onset; there are diphtheritic bronchites, with consecutive croup and angina; there are primary cutaneous diphtherias. If the skin is denuded; if the mucous membranes of the mouth, of the larynx or bronchi, are inflamed or irritated; it is there that the infectious germ may implant itself and undergo development first. There is no dispute relative to diphtheritic stomatitis, to true croup at the start, or to cutaneous diphtheria. As for primary diphtheritic bronchitis, this form also exists; I have observed a striking instance, which in a few words I will relate:

A large girl, aged twelve years,* convalescing from typhoid fever, was attacked with bronchitis, fever, and a grave condition of prostration. Three or four days afterwards, the respiration became embarrassed and attacks of suffocation appeared. Presently the existence of croup was evident; on looking into the throat, a false membrane was seen covering one of the tonsils. The accessions of suffocation were repeated, necessitating the operation of tracheotomy. The child eventually got well, although new false membranes formed in the throat after

* Physician to the Hospitals, Paris, France.

* Observation taken in 1879, at the *Hôpital des Enfants Malades*, service of Archambault

the operation. Is it not plain that in this case it was by the bronchi that the diphtheria commenced—by the bronchi, perhaps even then inflamed, or at least rendered more impressible as the result of the typhoid fever (typhoid bronchitis)?

There is, then, in diphtheria, a local accident which ushers in the general infection; in other words, the systemic poisoning results from the presence and sojourn of false membranes in the throat or in some other part of the mucous or cutaneous surface. In fact, the angina is not the manifestation of the diphtheritic infection, but the starting point of this infection.

These views, which I had long ago formulated, have received of late striking confirmation in the carefully conducted experiments of ROUX and YERSIN, which go to show that, prior to any constitutional infection, a poison is elaborated by the diphtheritic microbe in the interstices of the false membranes; this poison, which is of the nature of a ptomaine, is soluble, is absorbed into the general circulation, and causes the constitutional symptoms.*

If you are convinced by these arguments, and if you admit, with me, that the false membrane is the source of the infection of the organism, you will see the importance of early and complete destruction of these diphtheritic membranes in the pharynx, or wherever they may be accessible. It has been objected to this mode of treatment that the ablation of the false membranes denudes the mucosa, removes the epithelium, and opens the way to infection. This objection is just, if you content yourself with simple ablation of the false membrane. You must, at the same time that you remove the false membrane, cauterize the subjacent mucosa, and it is necessary to employ for this purpose an agent which is both caustic and antiseptic, which kills the infectious germ, and cauterizes the mucous membrane. Now it seems to me that of all the antiseptics, concentrated phenic acid is the one that best fulfills this double indication.

Phenic (carbolic) acid, in concentrated solution in alcohol is the best topical agent to employ in diphtheritic angina. Instead of pure phenic acid, I ordinarily employ a preparation, the formula of which originated with DR. SOULEZ, under the name of *phenicated camphor*. Dissolve from 5 to 10 grammes of concentracted phenic acid, and from 20 to 30 grammes of camphor in ten grammes of alcohol at 36° C. (100° F), and add to this solution an equal volume of sweet oil, or sweet almond oil. The application of this agent is less painful than that of simple phenic acid; but I have sometimes, with equally good results made use of the concentrated alcoholic solution of phenic acid, diluted with an equal volume of sweet oil or almond oil, without the addition of camphor. The mixture of camphor and phenic acid, is, however, preferable, although in this preparation the camphor is of secondary importance, the essential agent being the phenic acid.

DR. SOULEZ, of Romorantin, had indeed used the phenicated camphor in diphtheritic angina, but he employed it only in light paintings or touches over the diphtheritic patches. He attributed to it the advantage of not being a caustic, of respecting the surrounding parts, of not wounding the epithelium whose destruction is one of the circumstances which most favors the invasion of the diphtheritic infection.

Now I believe, on the contrary, that the strong carbolic solution, with or without the camphor, is an energetic caustic, and this is precisely the advantage that I claim for it. I do not employ it simply in *light touches*, but I endeavor by an energetic swabbing and rubbing to remove mechanically the false membranes, using for this purpose a swab which has been dipped in the caustic solution; nor do I fear to denude the mucous membrane, which I take care to have thoroughly cauterized by the antiseptic agent. I combine the mechanical action with the caustic and antiseptic action. The topical agent which I employ is that of SOULEZ, as I have said, but the therapeutic method is mine.

I do not mean to say that cauterization of the throat in diphtheritic angina is a new method; it was formerly a custom to cauterize the false membranes in diphtheria with nitrate of silver, with hydrochloric acid, etc., and success was obtained thereby—more success, certainly, than when the false membranes were respected; but the old method was imperfect, for the cauterization was not done thoroughly enough to prevent the general infection, and in some instances, even, it may have favored it. The advantage of the phenic acid, I repeat, is that it is at the same time a caustic and an antiseptic.

Such is the principle of the therapeutic method which I propose, after having employed it with constant success:—To remove or destroy the false membrane, to cauterize the subjacent mucosa, and at the same time prevent general infection—thanks to the employment of an antiseptic caustic.

The application of this treatment presents some difficulties, and it is important to understand all the details of the process.

With the liquid of which I habitually make use, and whose mode of preparation I have given alone, I make thorough and frequent applications to the diseased surface; but it is not sufficient, as I have already said, to paint the throat with this agent, you must at the same time, remove the false membrane by energetic

* See The Medical Age, March 25th, 1889, p. 135.

rubbing. I make use of a pencil of hog's bristles roughly trimmed in the form of a brush. or, what is simpler still, of a swab formed by wrapping a little absorbent cotton or antiseptic wool around the end of a small twig or stick. This swab is saturated with the caustic solution, but it must be carefully dripped before applying it to the throat, for you must not let any drops of the liquid fall into the mouth or windpipe.

The mouth being widely opened, and the tongue depressed, you carry the swab charged with the liquid into the back part of the throat, applying it to the tonsils, to the velum pendulum, etc.; you should rub vigorously the diseased surface, in order to detach and remove the false membrane, which remain adherent to the swab under the form of debris or flakes. After each rubbing, the swab is washed in a carbolic solution; these frictions should be repeated several times at each séance, till all of the false membrane has been removed or destroyed. You make a final application of the swab to the throat in order to touch with the caustic all the surfaces which have been denuded and despoiled.

This operation should be repeated morning and evening, and in the interval of the cauterizations, you should make every two hours large irrigation injections into the throat of carbolic water a 1 per cent. solution, using for this purpose an ordinary or fountain syringe. It is well, also, to make one of these irrigations immediately after each cauterization, in order to assuage the pain and smarting which this has occasioned.

The pain, in fact, is sometimes very severe, and in certain cases one needs very great courage in order to continue the treatment: You can, however, always mitigate the pain by previously spraying the throat with a 3 per cent. solution of hydrochlorate of cocaine.

The inflammatory action which follows the operation is not as intense as has been alleged. If deglutition is impeded, it is not notably more so than in any form of grave pseudo-membranous angina in which the false membranes cover the entire pharynx. But still, I admit the fact of the pain; I admit the inflammatory reaction and the difficulty of deglutition; I admit that the antiseptic cauterization may entail all these disadvantages. Who, however, would not consent to endure a little severe pain in order to have a better chance of being cured?

I recognize the fact that it would be desirable to find a less painful, and yet quite as certain mode of treatment, but while waiting till this shall be devised, I prefer a painful though sure treatment to any other less painful but more uncertain.

Another disadvantage which is sometimes met with, is the black coloration of the urine, due to the elimination of phenic acid. It is certain that as a result of the carbolic cauterizations, and irrigations to which I attach so great an importance, a small quantity of phenic acid may be absorbed. This event can not be but advantageous in combatting the general infection; I have never seen it produce grave accidents. I have never observed, strictly speaking, phenic-acid poisoning.

Since 1879, I have treated by the method which I have just set forth, 16 cases of grave diphtheritic angina, where the diagnosis was most positive.

I intentionally leave to one side all the benign cases of pseudo-membranous angina of somewhat doubtful nature, to which I applied the same treatment.

In 16 cases, I have had 16 recoveries. These cases were of the utmost gravity; several of them, as that of ALBARRAN which has been reported by DR. LE GEODRE, were desperate cases, for which I was called only as a last resort.

These are principally the facts which I wish to submit to my confrères in all their simplicity. It is well that I should remind this assembly in this connection of the remarkable success which my colleague DR. DUBOUSQUET-LABORDERIE claims from this treatment; the latter having, since 1884, treated 84 cases of a grave and malignant character, according to my method, which he has successfully followed. Of these 84 cases, 80 made a good recovery; a record of 92 per cent. of recoveries in grave diphtheria is surely something unprecedented. My colleague's report will be found in full in the number of the *Bulletins et Mémoires, de la Societe de Médicine Pratique*, for January 15, 1889.

Most of my observations concern adults. In children, the application of this treatment is more difficult, but it is not impossible: only we act somewhat blindly. It is necessary to wrap the child in a sheet, in order to keep it perfectly still, to wedge the mouth open by means of two corks, one on each side of the jaw; to introduce between these two corks the brush soaked in the caustic solution, and to swab vigorously the entire throat. The carbolic irrigations should be made as in the adult. When this treatment is applied from the onset of the angina, it almost always prevents general infection; the fever falls by an abrupt descent of the temperature after the first cauterization; there is no albuminuria.

When the treatment is applied at a late date, the general infection is already realized, the urine is albuminous; but this albuminuria, which is the most certain sign of the infection, is also a necessary phenomenon, which proves that the renal filter has been forced, and gives passage to the parasites which infect the blood. I do not mean that the albuminuria, in itself, is a favorable symptom, but it is the proof of a

necessary elimination. In such cases, then, the general infection has taken place; I do not make any pretentions to circumvent this all at once, but I believe that the antiseptic cauterization of the throat prevents the continuance of the infection.

Thus, on the one hand, the infectious germs already in circulation in the economy are eliminated by the urine; on the other, the multiplication of these same germs in the pharynx is arrested; the organism is not infected anew, thanks to the incessant destruction of the false membranes; the few germs which escape the caustic solution cannot enter the blood vessels, owing to the cauterization of the denuded mucosa. The spontaneous effect of nature and the therapeutic efforts of the physician unite in bringing about the same end, and result not only in the cure of the angina, but in the prevention of the general diphtheretic infection.

Editorial note. In the above paper by Dr. Gaucher,—who, whatever may be said about the *harshness* of his treatment, has quite a following in France, who claim that the results which have attended his efforts in treating diphtheria, and the latest teachings of experimental science gives support to his method—allusion is made to a communication by Dr. Dubousquet-Laborderie in the *Bulletin et Mémoires de la Société de Médicine Pratique*, for January 15, 1889, where Dr. Gaucher's mode of treatment is endorsed and enforced by powerful considerations.

Dr. Dubousquet employs along with the cauterizations, carbolic injections, (10 per cent. repeated every two hours), and he highly commends these injections. With the injections, the false membranes become more quickly detached: he would not rely on these injections exclusive of the cauterizations to prevent general infection. With the cauterizations alone, he says, the duration of the disease is longer by three or four days than when the injections are used along with them.

The great objection to this heroic treatment of diphtheria is its difficulty of application in young children, and the painfulness of the cauterizations. Many parents would decidedly object to what they must regard as a cruel procedure. We are certain that in children under five years of age, such treatment, carried out in all its rigor, would be found very impracticable. Few physicians in this country, certainly, will have the hardihood to follow the leading of Drs. Gaucher and Dubousquet, however theoretically and scientifically correct their therapeutics of diphtheria may be.

FACIAL PARALYSIS; CHOREA — A CLINICAL LECTURE.*

BY D. R. BROWER, M. D.,†

This patient is 43 years of age; she is brought to the clinic because of a deformity of the face; the trouble commenced six years ago; it came on slowly—first as a stiffness of the muscles of the face, and shortly afterwards she found difficulty in swallowing. The stiffness of the face had gradually increased, until the face became as distorted as it is now. You notice all absence of facial expression on the left side. You notice an inability to close the left eye. The right eye is, as you see, closed without difficulty. The orbicularis palpebrarum of the left side has lost its contractile power, while the levator palpebræ superioris, not supplied by the facial, but by the third nerve, is not paralyzed, and this keeps the upper lid elevated. You notice the conjunctiva of the left eye is more or less injected. The eye is constantly exposed to the action of the atmosphere, and to contact with irritating substances. The patient cannot wink this eye, and thus the tears, not being distributed over the surface of the eye-ball, or carried off by the nasal duct, run over the lid down the cheek, and dust and other small particles of matter remain in contact with the eye, and become sources of irritation.

You will notice that the occipito-frontalis muscle of the left side is paralyzed; whereas, on the right side its action is perfect. You will notice the patient cannot press up the mouth on the left side as in the act of whistling. One-half of the orbicularis oris muscle is paralyzed. The muscles which are used in the act of laughing and smiling, about the mouth are also paralyzed. The ala nasi on the left side is depressed, and does not expand in breathing. The patient cannot frown on the left side, owing to the paralysis of the corrugator supercilii—in fact, there is an absence of all power in the muscles supplied by the facial nerve on the left side of the face. The face is drawn towards the opposite side, there being an absence of the antagonism that should come from the left side of the face. The facial nerve takes its origin from the posterior border of the pons varolii, and lateral tract of the medulla. From this point of apparent origin the facial nerve passes forward and leaves the cranial cavity, entering the internal auditory meatus with the auditory nerve; it next enters the aqueduct of Fallopius, passes through its whole length, and makes its exit from the skull by the stylo mastoid foramen. While in the aqueductus Fallopii it gives off two petrosal nerves, and the chorda tympani nerve. Now, the facial nerve may be paralyzed from a lesion within the cranial cavity, in the aqueductus Fallopii, or after it emerges from the stylo-mastoid foramen. If the paralysis is, after it emerges from the stylo-mastoid foramen, it will be limited to the muscles of the face. This is the ordinary form of paralysis. It is a form of paralysis that usually results from cold, as, for example, in a person who sits near an open window and has a current of air blow upon the face. I have met with such cases in persons who on board a Pullman palace car sleeper, with the window open, and the wind blowing in on the side of the face, secured paralysis of the muscles from the effects of cold. Such conditions are especially liable to occur in persons of rheumatic tendency.

* (Reported for MEDICAL AGE.)

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These cases of pure and simple peripheral paralysis usually yield to treatment promptly, complete restoration of power being the rule in the course of two or three months of treatment. If the nerve is paralyzed within the aqueduct of fallopius, we have not only a paralysis of the muscles of the face, but also a paralysis of the palatine and uveal muscles, with abolition of taste upon the side of the tongue corresponding to the paralysis. Owing to the involvement of the chorda tympani nerve (which, while not directly a nerve of taste, is yet a nerve that places the papillæ of the tongue in a condition to receive the sensory impressions of taste), if the pathological lesion is in this aqueductus Fallopii, there is also impairment of hearing, not a loss so much as an exceeding sensitiveness of sounds. Now, in this case, we have paralysis of the palatine and uveal muscles added on to the paralysis of the facial muscles. The uvula and velum are pulled toward the sound side by the action of the tensor palati muscle. But there is no acuteness of hearing on this side—indeed there is a loss of hearing on the paralyzed side. Her sense of taste is also impaired. She says she only tastes on one side of the mouth. This is true of all things she eats, bitter and sweet alike.

The question will thus arise whether this lesion be in the aqueductus Fallopii, or whether it be central. If the lesion be of a magnitude sufficient to destroy the facial nucleus or to interfere with the facial nerve in the medulla it must be of such character as to produce other disturbances in that same neighborhood. Closely adjacent to the facial centre are situated other centres of importance—the 5th, 6th, 7th, 8th, and 9th centres are all on the floor of the 4th ventricle. In short, all the cranial nerves below the third are found in that little space. If this lesion involves the facial centre by reason of its centric origin it must affect more or less these centres that are in such close proximity to it.

We will examine the condition of the fifth nerve. She feels the pressure made by the point of a pin, but has no appreciation of pain. She has no sense of pain, therefore there must be some involvement of the sensory nucleus of the fifth nerve. She says she has difficulty in working her jaws; difficulty in keeping food applied to the teeth—it collects on the affected side. Now, the muscles of mastication, the masseter, temporal, external and internal pterygoid are supplied by the third branch of the fifth pair of nerves. The buccinator, the function of which in conjunction with the tongue is to press the bolus of food against the jaws and thus keep it submitted to their action, is supplied by the facial nerve, so that in this case we have not only a paralysis of the buccinator muscle, requiring her to frequently remove the bolus of food with her finger, but also difficulty in chewing. She also complains of difficulty in swallowing her food. The process of swallowing is a complex one, in which the 5th, the 8th, and 9th nerves are mainly concerned. She also has disturbance of respiration, shortness of breath, sighing respiration, and more or less constant cough. We have also mentioned that the hearing on the affected side is impaired, so that the pathological lesion upon which this paralysis depends must be located in the neighborhood of the medulla.

The next point to determine is the kind of lesion, and what its cause. In other words, what has produced this condition of things? There must be some abnormal growth or some pressure upon the medulla.

She tells us that she is the mother of 12 children, and has had five miscarriages. Upon examining her post-cervical glands, we find that they are enlarged. We notice also enlargement of the epitrochlear glands. These glandular enlargements, and the miscarriages that she admits, point with quite unerring certainty to a specific origin of the trouble.

The precise nature of the lesion, if it is specific in origin, may be degeneration of the blood vessels interfering with the blood supply of these important nerve centres, or it may be due to a tumor; and this may have its origin in the bone, either as an exostosis or as a growth from the membrane, or it may be a chronic meningitis.

Inasmuch as these symptoms have come on gradually, resulting in gradual impairment of muscular power and the gradual extension of the pathological process to other territories, a most reasonable theory would be of a tumor upon one side of the medulla, which by pressure; has destroyed the seventh and auditory nerves, has partially destroyed the fifth nerve, impaired the functions of the pneumogastric, and somewhat impaired the functions of the hypoglossal.

The prognosis in this case is bad. The intracranial lesion has been of long standing, and is of considerable extent; and we find upon examining the muscles by electricity that they have lost their electric contractility. They will not respond to the induced current, or even to the strongest interrupted galvanic current, she can tolerate. But the prognosis is more favorable if the lesion is syphilitic than if it were due to any other cause. If there is no prospect of relieving the facial paralysis, there may, at least, be a prospect of preventing any further extension of the disturbance of other centres.

We will order for her the iodide of potassium in gradually increasing doses, beginning with ten grains, and running it up to the fullest extent of toleration by the stomach. If the iodide

of potassium is administered to these patients in alkaline effervescing solutions, they can tolerate a great deal more than if given in the ordinary way, the effervescence and alkalinity of the water making the remedy better tolerated by the stomach. It will be desirable to run the iodide of potassium up, if possible, to 60 grains, three times a day, and along with it she should have tonics, such as quinine, iron, and strychnia. It may be well to interrupt the iodide of potassium occasionally and administer mercurials. The treatment should be tonic and alterative.

In the ordinary form of facial paralysis—that which is purely peripheral, and is the result of cold—if seen early, you should endeavor to prevent atrophy of the facial muscles by having your patient wear a device consisting of a piece of hard rubber, or a piece of silver wire, bent into a hook shape and drilled with a little hole in the end of it, and a rubber band attached to the end in which the hole is drilled; place the hook in the corner of the mouth, and the rubber band sufficiently tight over the ear. This will take the place of the facial muscle so far as its antagonizing power is concerned, and will do a great deal towards preventing muscular atrophy. Of course, you must regulate the pressure of the rubber band to suit the requirements of the face, simply having it tight enough to relieve the facial deformity.

Then you must administer to these patients, if they are rheumatic, anti-rheumatic remedies, (the salicylates and the alkalies), and apply hot fomentations, and the constant galvanic current, placing the positive pole at the nape of the neck, and the negative over the various muscles of the face. The passage of the constant galvanic current in this way through the nerves of the face, will tend to diminish very materially the congestion or inflammation that may be present. After a few days you may begin to exercise the muscles by the faradic current, if they will respond to it, as they usually will, using a mild current, and simply giving each group of muscles a single contraction at a daily sitting. If the muscles will not respond to the faradic current, then use the interrupted, galvanic current, with strength just sufficient to make muscular contraction. You must avoid, in the treatment of paralyzed muscles here and elsewhere, the excessive use of electricity. As we have already stated, a single muscular contraction, or, at the utmost, two muscular contractions for each muscle or group of muscles, is all that should be permitted at one sitting.

Now, in the case before us, we have told you the muscles have lost their contractile power even in the strongest possible current; so electricity can be of no possible service in this case.

CHOREA.

This boy now before us, 14 years old, is the brother of a female patient who has been before us as a case of hystero-epilepsy, and on whom the operation of oöphorectomy has been performed. He springs from a nervous family. You notice the irregular and disorderly muscular movements that he manifests. These movements are choreic. They began in the left foot. After a time they showed themselves in his fingers and in the arms, and are gradually extended. They are now in a constant condition of jerking. You notice also the grimace, the twitchings and irregular movements of the muscles of the face. The boy has a very redundant prepuce, as you notice, and he has been sent here to determine whether the operation of phimosis would relieve his nervous condition. Upon retracting the foreskin, we find no evidence of any special irritation of the glans. Sometimes this condition of the prepuce is a source of irritation to the nervous system; it will produce quite as much nervous disturbance as is manifested in this case. But such is not usually the case, unless there is some irritation of the glans from the retention of the secretions.

I call your attention to the great enlargement of his abdomen. I also ask your attention to the enlargement of his post-cervical glands. Now, this enlargement of the post-cervical glands is sometimes syphilitic; it is sometimes scrofulous; but in connection with this tumefied condition of the abdomen it is more likely to be scrofulous than it is to be inherited syphilis. It is, however, an indication for a mild alterative course of treatment, and we shall order for this boy:

℞ Liquor potass. arsenitis, ʒ ii,
Potass. iodidi, ʒ i,
Syrup hypophos., ℥ iv.

Sig.—One teaspoonful after each meal in water.

We will gradually increase the dose of liquor potassi arsenitis. We will order a separate portion of it, and every third day instruct the mother to add a drop to the mixture, increasing until the choreic movements cease, or until it produces some of its poisonous effects, such as burning pain in the stomach, looseness of the bowels, or puffiness of the under eyelids. By this process of increasing the dose you can give with advantage as high as 15 minims of liquor potassi arsenitis, three times a day; and the curative effects of this remedy are not fully realized until you approach very close to its poisonous dose.

The want of success in the treatment of many of these cases with the liquor potassi arsenitis, is dependent upon the fact that it is given in entirely too small doses.

Then strict attention must be paid to the condition of his bowels. He must be fed upon the most liberal diet, given out-door exercise, and be encouraged in the judicious use of gymnastic movements. The extract of malt and cod-liver oil will also be indicated.

SYPHILIS OF THE HEART.

BY E. P. HURD, M. D.

CHARLES MAURIAC in a lecture recently delivered in the Hôpital du Midi, and published in the Semaine Medicale, takes up the subject of Syphilis of the Heart.

The cardio-syphiloses, he says, are among the rarest of syphilitic visaropathies. The number of really authentic cases which we possess, does not probably exceed twenty-five or thirty. According to JULLIEN, syphilis of the heart in the great majority of cases, never makes its appearance till at least ten years after the infecting chancre. The cardio syphiloses are, then, generally tertiary manifestations.

Syphilis attacks separately or simultaneously all the constituent parts of the heart, pericardium, endocardium, valves, but especially the muscular tissue. The endocardium is almost always affected along with the myocardium; the pericardium generally escapes.

A fact which is sure to be the first to strike the observer who has to do with cases of syphilis of the heart is that the walls alone are the seat of the specific lesion, the orifices and valves remaining intact. The first effect of the embryonal infiltration upon the cardiac muscle is to augment the volume of the latter, to thicken the walls and dilate the cavities. There is developed an interstitial myocarditis, which naturally diminishes the contractile force of the heart and its resistance to the centrifugal pressure of the blood upon its walls. Hence, when in any point, all the muscular fibres are destroyed, there is formed an aneurismal dilatation whose walls are constituted by the thickened endocardium and pericardium, and an intermediate stratum of sclerosed muscular tissue.

In the absence of gummy tissue it is very difficult to distinguish syphilitic cardiac sclerosis from that which is produced by other general causes, such as arthritism and alcoholism. In arthritism, it is true, the lesion is almost constantly seated in the orifices and valves; in alcoholism there is fatty accumulation, and the granular degeneration of the muscular fibre comes about primarily, and independently of any previous inflammatory state. But all these etiological influences may be combined, and it is not easy to disentangle them, so as to assign to each its respective part in the morbid results.

When gummata are present, there is no doubt as to the specificity of the pathological condition. Gummatous tissue presents itself under the form of roundish tumors, more or less regular, variable as to volume and number. These growths are yellowish-white or grayish, of firm or caseous consistence, homogeneous on section, and when sufficiently large, project from the surface of the walls; some are small as a bean or cherry, and completely imbedded in the muscular substance; others are as large as a pigeon's egg. Generally multiple, they are situated side by side, in masses or groups, without any systematic arrangement. As before said, the favorite site of these tumors is the muscular fibres of the walls of the heart, the valves and orifices being respected; around these gummy foci, the muscular tissue undergoes granulo-fatty degeneration, and ends by disappearing altogether, choked out by the morbid elements.

These cardiac gummata undergo the same evolution as those of the subcutaneous cellular tissue. They soften, ulcerate, and discharge the products of their necrobiosis into the cavities of the heart. Several observations, and among others that of OPPOLZER, demonstrate this beyond question. The gummata of the heart, like those of the intestine, may suppurate and be eliminated. They thus behave differently from those of the liver and kidneys, of which the centre becomes caseous in mass, but does not suppurate, and which, by becoming surrounded with a tough fibrous covering may remain in place for a long time, without any tendency to elimination. Besides the gummata of large size, there are also found miliary granulations of the same character with caseous centre, and a periphery full of proliferating embryonal cells.

Vascular lesions pertaining to the cardiopathies are very common. They consist in a periarteritis, characterized by an accumulation of embryonal cells in the adventitia; this infiltration is not, however, long confined to the outer coat, for sooner or later the intima in its turn is invaded, becomes thickened in places, or throughout its entire circumference, and gives rise to stenosis. In some cases gummy growths bud into the interior of a vessel, obstructing its lumen.

The signs and symptoms of these syphilitic cardiopathies are very obscure. The affection often remains unperceived till its last stages, and terminates abruptly by a rapidly progressing asystolia, or by sudden death.

Palpitations, disorder of the pulsations, severe pain, or an agonizing sensation of precordial constriction, like that of angina pectoris, oppression, dyspnœa, tendency to lipothymia, earthy coloration of the skin, cyanosis of the mucous membranes, of the face, of the extremities, distention of the veins of the neck, etc., in a word, asystolia under all its forms and in all

its degrees, is the aggregate functional trouble caused by the syphilitic cardiopathies.

As for the signs, they consist in a greater or less augmentation of the cardiac dullness; the heart sounds are dull, muffled, and sometimes accompanied by a slight *bruit de souffle*, whose organic cause and whose seat are always difficult to determine. The obscurity in the physical signs is the peculiarily of the primary affections of the myocardium, and agrees exactly with the absence or rareness of lesions of the valves and orifices, so often demonstrated by the autopsy. The valves may, however, become insufficient by reason of induration of the papillary muscles and shrinkage of the chordæ tendinæ. In such cases, there will be a murmur.

Nothing is more difficult than to diagnosticate the syphilitic affections of the heart. The knowledge of the fact that the patient has had syphilis will be an aid to diagnosis. The existence of any actual specific lesions, internal or external, might lead the physician to suspect that the cardiopathy was of syphilitic nature, while the presence of well marked signs of valvular disease would militate against this view, as the cardio-spyhiloses are essentially muscular, and much oftener manifest themselves by functional troubles than by the physical signs of narrowness of the orifices or insufficiency of the valves. The physician will, moreover, endeavor to determine whether the myocarditis which he has found to exist is rheumatic, alcoholic, or syphilitic. Here the antecedents of the patient must furnish the guiding clue; unfortunately it sometimes happens that the three etiological conditions meet in the same individual. In an event of this kind, the physician will not go astray by applying the specific treatment in all its rigor. It will not do, however, to count too much on the treatment. The reason why any attempt to ameliorate the condition so often fails, is that the patient comes under observation too late—at a time, in fact, when the fibrous transformation of the myocardium has taken place, and the gummata have attained a development that is irremediable. Thus far nearly all cases of cardiosyphiloses have terminated fatally. MAURIAC records one interesting case diagnosticated by him as syphilis of the heart where the patient got well under two drachms daily of iodide of potassium. The patient had gummata of the hairy scalp, syphilitic ulcerations of the extremities, and osteocopic pains in the limbs, also atrocious noturnal headaches; the heart was hypertrophied, there was a real "tachycardia," and a diastolic murmur. From the absence of any rheumatic or alcoholic antecedents, and the presence of signs of advanced syphilis, MAURIAC concluded the heart trouble to be syphilitic. The cardiac and syphilitic manifestations disappeared under specific treatment.

Correspondence.

THE ESTABLISHMENT OF THE CLINICAL DEPARTMENT OF THE UNIVERSITY OF MICHIGAN AT DETROIT.

In response to letters requesting an expression of opinion from physicians of Detroit, and of the Medical Faculty of the University, as to the advantages or disadvantages of establishing this clinic at Detroit, the following replies have been received:

ANN ARBOR, MICH., MAY 3, 1889.

I have no hesitation in writing you briefly my opinion in regard to the matter, as it is one affecting the interest of the people of this state, and is of especial interest to the medical profession. I wish first to correct the statement that the effort is to *remove* a clinic to Detroit. What is proposed, and what I have advocated, is to build up a *complete* clinic in Detroit, as an *addition to the Medical Department of the University*. There is no proposition to *remove* a clinic, and it has only been put in that light by those who oppose the measure, evidently to secure the active co-operation of the citizens of Ann Arbor, and arouse the opposition of the conservative element of the University.

It is not merely a question of "advantages," but the establishment of such a clinic in Detroit is a necessity to further progress in the medical department, and not only necessary to its further progress, but even to maintain its present standing.

The advantages are: first, Detroit is the only city in the state with sufficient population to enable the faculty of the medical department to establish a complete clinic, such as is essential to maintain a first-class medical college; second, it is the only city in the state where a sufficient number of *experienced* men can be maintained to teach the different specialties into which medicine is being divided and which must be represented in the faculty of a medical school of a high order. Indeed, it is the only city from which we can secure men properly qualified by experience to take charge of the existing practical chairs in the department at Ann Arbor, as they are made vacant. Otherwise young and inexperienced men have to be appointed to these chairs, and they must acquire their experience and practical wisdom at the expense of patients who are sent here by the profession, or otherwise induced to come, on the supposition that they are to receive the benefit of treatment by medical men of greater *practical* wisdom and experience than they have near them at their homes. This savors too much of false pretense to be encouraged in a great institution of learning. It is the only resort, however, when practical chairs have to

be filled by men who will come to Ann Arbor to live. Only broken-down men, who have been failures elsewhere, or young men lacking experience, can be obtained to fill clinical chairs.

In Detroit there is a field for tried and experienced men in private practice, and their services can be secured for the University and people of the State at a merely nominal sum, to take charge of these clinical chairs. Humanity dictates that this should be done, and only unwise management of the University, it seems to me, can oppose it.

Fourth. Detroit is the only city where the University can establish a fourth year in its medical course with the least prospect of success.

So rapid is the advancement in medical science that a four years' course is now as urgently demanded by the profession as a three years' course was when this establishment of a clinical department in Detroit, was first agitated five years ago. The Examining Board for the State of Illinois has lately announced that no medical school shall be considered by them as in good and regular standing after the year 1890, unless it has a four years' course of instruction. The graduates of all other schools will have to undergo the same examination for practice in that state as non-graduates. The University being a State institution ought to take the lead, and a four years' course will soon be necessary to maintain even the present standing of the medical department.

Those who are wise will look ahead and be prepared for the demands of the profession.

Fifth. The establishment of a fourth year in Detroit offers a prospect of union of the existing colleges in such a way that each may perfectly supply the defects of the other, and unite the medical profession of the State in the interest of advanced medical education. Harper Hospital, which can be secured for the use of the medical department of the University by proper effort, is by the will of those who founded it, to be forever placed under the medical control of the regular profession, and its management is more likely to be in harmony with the sentiments and wishes of the regular profession of this State, than a hospital under the joint management of the regular and homœopathic schools at Ann Arbor, as is now proposed in the new hospital asked for.

This plan was once tried and proved a failure, and separate hospitals had to be established.

Sixth. The establishment of a fourth year, and a complete clinic in Detroit, is the only plan that will enable us to keep pace with the advance in medical science, and furnish to the people of this state the very best medical graduate. This they have a right to demand when they are called upon to support the school by direct taxation. This the Regents of the University are bound by their oath to favor. The only question for them to consider is, what is necessary to best qualify the medical graduate to assume the responsible position he occupies, and fulfill his duty to those who have helped to educate him, and look to him for aid? *Before this question all local interests and other considerations must down.* Detroit is a part of Michigan, and if the people can get the benefit of her hospitals to better qualify those who are to practice upon them, it is their sacred right to do so.

In deciding this question the Regents have no right to ignore the voice of the medical profession and act at the dictation of others. Medical men are the best judges, and they should look to them for advice. The Michigan State Medical Society, through its committee, said to the Regents in 1873: "The best medical school possible for Michigan will never be realized until it is located in the largest city we have, and by the side of the largest and best conducted hospitals we have."* The establishment of a graded course of instructions since that time, renders it now only necessary to establish a clinical school in Detroit to satisfy this request of the State Medical Society, made through its committee and afterward ratified. This is the most authoritative utterance of the profession of this state, and, until withdrawn by the State Society, must supersede all other expressions of opinion.

Seventh. It will retain students in the University throughout their course, whereas now many leave because of the incomplete clinical course, to graduate at schools where better clinical advantages can be enjoyed. This hegira of advanced medical students from Ann Arbor always existed, and is not the result of the agitation of the clinical question within the last few years, as those who oppose the measure untruthfully claim. *It has always existed, and is a matter well known to medical men and medical students throughout the country. No one will have the effrontery to deny this before any convention of medical men.*

There are many other reasons for the establishment of such a clinic in Detroit, to be a part of the medical department of the University, but I think the above one sufficient to justify the agitation of the question.

As to the disadvantages, I know of none. The establishment of a graded course removed every obstacle that formerly existed to the establishment of such a course in Detroit. The cry that it will dismember the University is without foundation. The laboratories that are used by all departments of the University can never be moved, and no one proposes it, as

*Trans. Mich. State Med. Society, 1873, p. 161.

these courses can be as well, if not better, taken at Ann Arbor than elsewhere. Instead of dismembering the University, it would make it stronger with the medical students, for it would retain many who now leave and become graduates of other schools, and lose, in a measure, their regard for the University. It would increase the respect and love of all medical alumni to see their *alma mater* thus leading off in advanced medical education, and remedying the only defect that has ever been urged as a reproach to her or to them.

Yours in the interest of truth and the medical profession,

G. E. FROTHINGHAM.

DETROIT, MICH., MAY 7, 1889.

For many years I have been convinced that the *clinical* department of the University ought to be extended to Detroit. The following are some of the reasons upon which this belief is based:

1. A medical school sustained by the State ought to occupy and cultivate to the utmost a larger and more legitimate clinical field than Ann Arbor can ever be made.

2. A medical school sustained by the State is in duty bound to give its students the best possible facilities for the acquirement of scientific knowledge and practical experience in the management of sick and injured persons.

3. While doing this for its students, the state supported medical school is in duty bound to make of itself a beneficent public charity by caring skillfully, and efficiently for as many of the sick and hurt poor of the community as it is possible for it to reach; using their cases not only for teaching students, but also for the no less important purpose of extending the boundaries of medical science.

4. Detroit with its large poor population presents a splendid field for these high purposes; Ann Arbor is absolutely destitute of all the requirements and characteristics of a genuine clinical field.

So far in its history, the only departments of practical medicine that have attained to anything like a reasonable standard of clinical efficiency, have been surgery and ophthalmology, and they have done much, and still the professors of these branches who might be supposed to know best about them, declare themselves as being very far from satisfied with the amount and kind of material with which they are by force compelled to content themselves.

5. In order to secure and retain for the practical departments of the University teachers of eminence and ability, a richer field for private practice, must be furnished than Ann Arbor can ever hope to be. The straits to which the University has been driven in its efforts to fill the chair of obstetrics, is the best illustration of the force of this argument. No man of real eminence and ambition in the profession could be found to accept the chair in Ann Arbor, whereas, if situated in a city like Detroit, there would be no scarcity of eminent applicants to choose from

6. In addition to the large poor population of Detroit, there are several excellent hospitals already in existence which the University clinic could utilize to the immense advantage of all concerned.

7. The hospitals and other clinical facilities of Detroit, have not as yet been cultivated, or developed to anything like the degree of usefulness and greatness of which they are capable. This fact is no disparagement to the Detroit medical colleges, which have had many difficulties, financial and otherwise, to contend with, incident to all private enterprises of an educational character. Not the least of the disadvantages which the Detroit schools have had to contend with in their struggle for existence has been the overshadowing power and influence of the state supported medical department at Ann Arbor. So that while failing to occupy and develop the clinical field of Detroit for itself, the University has involuntarily prevented its being done justice to by others.

8. The establishment of the University clinic in Detroit would be a great saving of money, as well as trouble, to the University. The expense of maintaining hospitals at Ann Arbor would be saved, as well as the salaries of all the professors holding practical chairs. The Detroit hospitals would supply, free of expense to the University, all the facilities of that kind which the school would require, while the teachers in the clinical chairs would be perfectly satisfied to receive only the fees paid by students while in attendance on their instructions.

9. The Detroit Medical School would willingly combine with the University on just and reasonable conditions, and by their combined efforts there would soon result one complete medical school, with a high standard of preliminary education, a four years' curriculum, a full staff of expert teachers in all the recognized specialties, possessing all requisite facilities for employing the time of the student so as to secure the highest possible standard of professional training; and last, but not least, there would be built up, gradually but surely, a genuine and normal clinical and dispensary system which would have the effect of establishing between the state Medical School, on the one hand, and the poor of the city and state on the other, such relations as could not fail to be mutually beneficial, and from which most valuable fruits would surely come, for the benefit of suffering humanity everywhere.

10. The wise and just consummation of this policy would very soon relieve the State University of two causes of popular complaint against it, viz., (1st) furnishing free technical instruction in medicine; and (2d) the treatment at the public clinic of many people who for various reasons ought to be excluded from such assistance as only really poor people of Michigan are entitled to.

11. Instead of expending public money for the importation and maintenance of abandoned women for the purpose of manufacturing a "counterfeit presentment" of an obstetrical clinic at Ann Arbor, (an expedient which I have no words strong enough to ridicule and condemn), a clinic in that Department could, with the greatest ease, be built in Detroit, which would be a beautiful and true charity as well as an efficient means of educational and scientific advancement.

Finally, it is my sincere and heart-felt conviction, that if petty, local, or personal interests, or the absurd fear of imaginary dangers, or any obstacle not absolutely insurmountable, is permitted to defeat this opportunity for the University to rise up and take its place among the great medical schools of the world, the time will soon come when severe and well-merited condemnation will be visited upon those persons, whoever they may be, who are responsible for the misfortune and the wrong of it.

The unquestioned fact that the medical department of the University has done excellent work in the past and made for itself and its alumni a reputation of which all are justly proud, ought in my opinion to act as a powerful stimulus to still higher effort in the future; and for that purpose no important, unprejudiced and competent authority will deny that she must have a larger and different field for her clinical labors than Ann Arbor can ever be made by even the largest amount of abnormal charity.

DONALD MACLEAN.

I believe in the integrity of the University of Michigan in all its departments. In council the institution was located at Ann Arbor, and an agreement was entered into between the authorities of both parties, that all that constituted a university should be in Ann Arbor. The special reasons I need not relate. As a citizen of Detroit and the State of Michigan, I feel proud of the University. As a member of the faculty of the Detroit Medical College, I do not deem it proper for me to enter upon a discussion of the merits of having a Medical and Surgical Clinic of the Medical Department of the University in this city. Suffice it to say, I am in favor of the legislature giving the Board of Regents all the money they want for the building up of the University in all its departments trusting to the future to demonstrate the correctness of their requests.

WM. BRODIE, M. D.

In my opinion, if Ann Arbor had ever so well-equipped a hospital, the requisite clinical facilities for a liberal medical education could not be secured for the students there, on account of the small size of the town; whilst in Detroit, by reason of location and population, these requirements could more readily be met, if the clinical department were here.

ANDREW W. IMRIE.

DETROIT, MICH. May 3, 1889.

I approve whatever will consolidate the true interests of the profession. While doubtful of a state institution providing a progressive or even capable custodian of medical learning; and while disapproving the unhealthy manner in which the patronage of state institutions is dispensed, political influence being a more potent recommendation for promotion than genuine merit, I should, nevertheless, approve of the removal of the clinic on the ground that one strong school might tend to a unification of existing schools, and thus modify some of the reasons for the present disatrous competition in the graduation of students.

To the University itself, the removal of the clinic to where clinical facilities are alone attainable, could only be advantageous—but the inability of the Regents to appreciate this, itself constitutes an adequate reason for doubting the wisdom of entrusting the future of medical education in Michigan, to an irresponsible oligarchy swayed almost exclusively by local motive, and whose educational aspirations are perpetually controlled by the narrow issues of political expediency.

F. W. MANN, M. D.

It seems to me an incontrovertible proposition that the modern multiplicity of medical schools in the United States has been injurious to the medical profession and a hindrance to the progress of medical science.

It seems to me also equally evident that one strong medical school in Michigan would be amply sufficient to meet all the necessities of the profession.

I have long thought that the occupation of the clinical field of Detroit by the University Medical School would tend to the absorption or extinction of all other medical schools in the State, a consummation earnestly to be desired in the interests of medical science.

I do not understand how any one can doubt the advantages to the University Medical School of enjoying the larger field of clinical medicine offered by our hospitals and large population.

The vested interests of any town or city, or

the personal interests of individuals, whether in or out of the profession, should not be regarded in the consideration of such a question.

JUSTIN E. EMERSON.

I approve heartily of the removal of the medical department of the Michigan University to Detroit for the following reasons:

First. Detroit is probably the best city in the State for a medical college, because the only one where the necessary clinical advantages can be met with.

Second. By removing the medical department to Detroit and combining, if possible, with the medical colleges here, the *standard* of medical education could probably be raised to a proper degree, and the University thus purged of the *disgrace* which now attaches to it, of *preventing* the elevation of the medical profession, by flooding the same with unqualified persons from other states and territories, as well as Michigan, at a low figure.

E. L. SHURLY.

The arguments in favor of the removal of the clinic of the medical department of the University to Detroit, have been well stated by various writers, who favor such a plan, in the medical and lay press during the last few months.

I can see nothing but good to come to the cause of medical education, and to the profession at large from such a removal, if it can be accomplished in such a manner as to receive the sanction of the majority of the members of the profession of this city.

To remove the clinic to this city, and leave intact the medical schools at present in existence, would only add to some of the present evils.

The most powerful opposition to any change in the existing condition of affairs comes from the staunch old friends of the University throughout the State, outside of the medical profession, who either cannot appreciate the value of proper clinical teaching, or, understanding this, believe the possible harm to come to the University overbalances any good that may come to the medical department.

Until this opposition is overcome, I do not see much probability of making any change in the present imperfect system of medical teachin the University.

C. G. JENNINGS, M. D.

PEPSIN IN DIPHTHERIA.

With thanks to the medical gentlemen who have contributed valuable information to the writer, by communications upon this most fatal disease, through the columns of the AGE, I will add my mite to the literature of a subject always so interesting.

Some time since I was called upon to treat a gentleman, aged 34, suffering with diphtheria. The disease had been contracted while nursing his little daughter during her fatal sickness with the same malady, so there was no doubt as to the diagnosis. At my first visit the temperature was near 105°, pulse full and rapid; headache. An examination of the throat revealed patches of false membrane. I prescribed quinine solution, corrosive sublimate, and alcohol. The latter was given in large and frequently repeated doses, which, before long, produced symptoms of intoxication. The throat was also gargled with carbolic acid solution. In addition to this, I put in warm water, some pure pepsin scales, and ordered that the throat be swabed with this every half hour. The fever soon disappeared, but for the next two days the throat gradually grew worse. At this time the fauces, and as far down the throat as I could see, was a solid mass of thick gray membrane. At this point I discovered that two mistakes were being made. First, that the patient and his attendant were both failing to carry the swab back far enough. To remedy this I secured a mirror and taught the patient how to depress the tougue so as to exhibit to his view the entire surface of the membrane. He was surprised at the condition of his throat, and thereafter did not fail to apply the remedies faithfully to the affected parts.

At the same time I became convinced that the pepsin, which had not dissolved in the warm water, but only remained in soft flakes, was not in shape to do the best work. I ordered my druggist to take one drachm pure pepsin scales, add to it 1½ ounces hot water and about twenty drops muriate acid; to warm and stir diligently. At the end of probably thirty minutes almost all the pepsin was dissolved. To this I ordered added four drachms tincture ferri chloridi. Armed with this preparation, I visited my patient and ordered it applied with the swab every half hour. When I made my next visit, in 24 hours, I had the pleasure of seeing the mass of membrane broken down, and some of it hanging in shreds, between which could be seen the red glistning mucous membrane. Some of the abnormal membrane had been coughed up already, and 24 hours more diligent application of the pepsin and carbolic acid solution resulted in the throat becoming cleared. In this case the patient made a good recovery, but with some temporary paralysis of the muscles of speech. In this first case I have had a good opportunity to try it, and the pepsin certainly seemed to di gest the membrane. Now, if it will act as well in membraneous croup, this addition to medical knowledge will be of vast importance. I would suggest, that since the membrane is not so easily reached in membranous croup, that a good atomizer be used to apply the pepsin so-

lution, and that the iron be omitted from it. From this case I learned two things. First, that patients do not always swab the entire throat when they think they are doing so, and. next, that the pepsin acts better in solution.

V. E. LAWRENCE, M. D.

HALSTEAD, KANSAS.

PHILADELPHIA LETTER.

The Sudden Death of Prof. Gross—The Two Chairs of Surgery at Jefferson College—The State Examining Board—The Hospital Examinations—Prof. Agnew's Retirement from the University —His Speech.

PHILADELPHIA, May 2nd, '89.

Less than a year ago at the celebration of DR. AGNEW'S fifty years of practice, DR. SAM'L W. GROSS, hale, hearty, and deep voiced, made the address of the evening. In it he said that twenty years hence, when he celebrated his, our semi-centennial, that "the dear old man" as he called AGNEW should officiate. Little did his hearers think that in less than a year he would be dead. One bright Sunday in March, he ventured out without outside wraps, and died a week ago of pneumonia, just as he was growing into a large and splendid work. A few years ago, when his father, the late PROF. SAM'L D. GROSS died, there were two candidates for the chair of surgery in Jefferson College, both too strong to be defeated. So that there have been two professors in that position, DR. GROSS and DR. DANIEL S. BRINTON. DR. GROSS' death naturally brings up the question what the college will do in this matter. Undoubtedly two heads in one branch have done the college no good.

The advocates in the regular school of the State Medical Examining Board, have had a set-back. They wanted a board established on which each school of medicine should be represented according to their numerical strength. There being 7000 regular physicians and a few scattered "eclectics," they naturally desired a board representing approximately this proportion. This plan the homeopaths fought bitterly, claiming that in such case fair play would not be done their graduates; although the board was to contain no one connected in the slightest way with any individual school, and each graduate to be examined according to his line of study. Consequently they filled the State Capital with their agents and homœopatic constituents, brought their influence to bear on the State senators, and the bill was killed; or rather so amended that an equal number of every "school" of teaching was represented. The regular physicians feeling that this was unfair, amending it so that it read every school in the state should make a four year course a requisite to graduation. Most unexpectedly, the public; the press and the legislature look on this plan with favor. Hence if it passes, every division of the schools of medicine will be equally represented, but every course will be four years. The effect can not be clearly seen at this time. The Jefferson makes three years requisite as soon as the present students graduate, while the University of Pennsylvania is in most cases for four years. On the schools themselves the effects are problematical. Whether students will go to other states is unknown, because untested—at any rate they will not be able to practise in this state, according to the bill, without taking four years somewhere. This may drive the other American colleges to a four years course. Many of the professors whose salaries are the principal proportion of their incomes, are feeling anxious because few students means small or no receipts, and this would be fatal to their prospects.

The necessity for at least a three years course of study was never more clearly shown than in the hospital examinations of this year. At Blockley, the City hospital, sixteen residents are appointed. There were 34 candidates, 17 from the University, 8 from the Woman's Medical, and 11 from Jefferson. 13 out of the 16 places were taken by University men, while the remaining three places were taken by "lady doctors;" Jefferson not getting a man in. Their men are good men and study hard, the fault lying largely in the shortness of their course.

On the occasion of PROF. D. HAYES AGNEW'S retirement from the Chair of Didactic Surgery, at the University, there was a brilliant and affecting scene. When the venerable professor walked into the lecture room, he was completely surprised. The place was packed with the faculty, and students; friendly flowers hid everything and the ringing cheers nearly overwhelmed him. Visibly affected throughout his lecture, which was on tracheotomy, he closed in a most feeling and beautiful manner. His speech, although entirely unpremeditated, is so appropriate that I quote a little of it for the MEDICAL AGE.

"There comes a time in every man's life when he wishes to be free; when he feels that even the pleasant duties and congenial tasks which have been his lot grow heavy. I have reached that time. As I look over the long stretch of years these most delightful thoughts are with me: first, that no act of discourtesy, no deed of unkindness has ever been done me by a student (loud applause): second, that the various positions which have been mine, have come totally unsought for and unasked, and: thirdly, that God has given me the sense, the

good sense, to resign when I feel that I am in the full possession of my faculties.

"We part to-day, some of us never to meet again. How eagerly and deeply would I impress on you your duties as physicians. You have chosen one of the highest and noblest of professions. Live up to it, keep up its high and lofty standard. Be honest physicians and upright; be good citizens and honorable; and above all, be noble in your manhood. I can say no more. God be with you!"

J. H. A.

A USEFUL FORMULA IN SKIN DISEASE.

EDITOR OF THE MEDICAL AGE:

I have been so successful in treating certain cases of skin diseases, that I thought I would write a communication on the subject. One case, that of a printer, who was affected with a very bad eczema of a chronic nature, on both hands (dorsal aspect), presented himself. His hands were so sore and inflamed that he could not work at his trade for weeks at a stretch. Hypertrophy of the skin, large scabs with cracks between, from which issued pus and other discharges, were the conditions as near as I can describe. I prescribed the following mixture with instructions for him to apply three times a day, very thoroughly at night, at the same time keeping the parts protected by cloth gloves:

℞ Ac. salicylic, ʒ ij.
Ac. boracic, ʒ iss.
Biborate soda, ʒ ij.
Alcohol,
Glycerin, ää q. s. ad ℥ iij.

M. et ft. lotion.

There was immediate improvement, and by sticking to the above treatment for three months, his hands are now comparatively well. I was myself affected with a very troublesome hyperidrosis, or hypertrophy of the sweat glands of the palms of both hands, and bromodrosis of both feet. I used the same remedy in a similar manner and I was surprised to see what good results followed. It is an excellent remedy in many skin affections, as acne, etc. It will pay any man, who has an obstinate case of skin disease of a non-specific nature to give it a trial. I generally incorporate about 10 drops of ol. bergamont with the formula to give it an agreeable smell.

FRANK M. SCOTT.

SCANDIA, KAS.

The Medical Age.

A SEMI-MONTHLY REVIEW OF MEDICINE.

B W. PALMER. A. M., M. D., Editor.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

DETROIT, MICH., MAY 10, 1889

Editorial.

THE AYES HAVE IT.

The question of the establishment of the medical department of the University of Michigan at Detroit, it is believed is of far reaching importance to the school itself, to the interests of medical education in Michigan, and to the people of this state.

Inasmuch as it is only by agitation and free discussion, that all the bearings of this question on the welfare of the University, and on the medical colleges, and physicians, and public can receive fair and candid consideration, and its proper solution reached, the AGE invited some of the prominent physicians of Detroit, and of the faculty of the medical department of the University, to express their opinions as to the advantages or disadvantages of the proposed establishment of the University's medical department at Detroit.

Most of the responses received at date of going to press, and which appear on page 200, answer the question suggested, emphatically in the affirmative, and in the main are unanimous as to the great advantages that would accrue to Michigan, and to Detroit and its medical educational interests by the execution of the plan proposed.

We are hopeful, however, that subsequent communications will consider more fully the negative side of the proposed plan that both arguments for and against may be freely ventilated, and a just decision arrived at.

As far as the letters already received are concerned we think our readers will agree that the "ayes have it."

THE IMPERFECTIONS AND DANGERS OF HOUSE DRAINAGE—THE REMEDY.

The pathological conditions arising from the inhalation of sewer and soil-pipe air, although not often immediately dangerous to life, are a source of great physical and mental distress and financial loss, and frequently are important factors in the predisposition to grave acute and chronic diseases.

Each plumbing fixture inside the walls of a house necessitates an opening, direct or indirect, into the public sewer, which may become an inlet for sewer air as well as an outlet for waste. In addition, each foot of waste-pipe, soil-pipe or drain, and each joint, may be avenues for the entrance of poisonous gases and pathogenic microbes into the house. With the universal introduction of plumbing fixtures into the houses of rich and poor alike in cities, the proper construction of house drainage has become one of the most important sanitary questions of the day.

In all the large cities of the East, sanitary house drainage has received the attention it deserves from the medical profession and the public, and it is gratifying to note that the physicians of Detroit have taken up the subject, and have shown the dangerous condition of the drainage of the average house of this city.

At a recent meeting of the Detroit Medical and Library Association, DR. C. G. JENNINGS read a paper criticising the house drainage of the city. The meeting was attended by a large number of architects and plumbers, who corroborated and emphasized the evidence given in the paper, and elicited from the physicians in the discussion, proof as to the grave faults in the common plumbing practice of the city.

The chief points brought out were:

1. The dangerous method in common use, of wasting the single plumbing fixture of the workingman's house. It is generally wasted by a crock or box drain into the sewer through a privy vault in the yard. The drain is usually badly trapped, and too often there is no protection at all against the direct passage of vault and sewer air into the house.

2. The almost universal use of the deadly tile drain buried under the cellar floor. In the language of the paper, "There can be nothing in house drainage so insidiously and persistently dangerous as a tile drain. It will surely leak in a very few years, and in addition to admitting drain air into the house, it will permit the saturation of the soil of the cellar floor with sewage." Such a drain, as was shown by examples cited, may be for years a constant and unsuspected source of infection. Sanitarians, almost without exception, condemned it years ago, and it is remarkable that it should still be used here. Its only recommendation is its cheapness.

3. The inaccessibility of drains, soil pipes, and traps. Every foot of waste and soil pipe, and every trap, should be in sight, or at least readily accessible. A system of drainage requires inspection as much as a steam boiler or an engine, and none of it should be hidden or out of reach.

(4) The inadequacy of the drain and soil-pipe ventilation commonly used. In the average house there is either no ventilation at all, or an imperfect attempt to make it by a small galvanized iron vent carried through the roof from the crown of the highest trap on the soil-pipe. Rarely is a foot vent put in. Each system of house-drainage should have a full-sized opening into the fresh air at the foot of the drain at the house side of the main trap. Each soil-pipe and long branch should be carried full-bore through the roof, and freely open above it. This gives a constant circulation of fresh air through the whole drainage system of the house, and prevents the formation and retention of the poisonous products of sewerage decomposition. With a perfectly tight drain, and soil-pipe ventilated in this manner, the character of the plumbing fixtures is a matter of minor importance.

From the evidence given at this meeting there can be no doubt but that the house drainage of Detroit is sadly in need of reform. The city should follow the example of the other large cities of the country, and at the earliest possible time, enact a plumbing ordinance which will ensure in every house built in the future, the construction of a system of drainage that will conform to the well established principles of sanitary science.

The reports of the Boards of Health of New York, Washington, Boston and other Eastern cities, show the great good that can be accomplished by such an ordinance. Detroit should be one of the healthiest cities in the country, and the adoption of an adequate plumbing ordinance would tend to abolish a most potent factor in the etiology of preventable disease.

EXALGINE, "THE LATEST ANALGESIC."

And now serenely bobs up a new candinate for professional favor in *Orthe-mono-methyl-acetanilide*, another of the numerous products derived from coal tar. To mitigate the terrors of chemical nomenclature, it has been christened by its discoverer, *Exalgine;* a word that etymologically and classically explains its supposed therapeutics, viz., "a pain killer."

Its superior virtues are loudly vaunted, though somewhat prematurely, apparently, since no authentic utterances are available; it is, however, being experimented with upon a large scale in Parisian hospitals.

The dose is smaller than that of antipyrin, which it is said to resemble, being 30 to 50 *centigrammes;* or 50 to 60 *c. g.*, administered in two doses in the twenty-four hours. Not being readily soluble in water, weak spirits is employed instead.

The claims made are: benumbing of sensibility, procuring quick relief from pain in all forms of neuralgia, and without cyanosis, or gastric or dermic disturbance; ready elimina-

tion by the kidneys, and lessening of the saccharine products in diabetic polyuria.

If the foregoing is true, *exalgine* will prove a true analgesic, a boon greatly to be desired, though we must admit a large degree of personal skepticism, based upon experience with the loudly heralded and greatly vaunted products of like chemical relations, that have so rapidly succeeded one another as candidates for professional favor during the last half decade.

We fear, in fact, that, like acetanilide, kairin, antipyrine, salol, etc., it will prove of secondary and relative importance merely. Further, from a physiological standpoint, a simple and perfect analgesic is an impossibility, since pain is secondary—a cry of the nerves for good blood to employ the simile of ROMBERG—and neuralgias are amenable to relief only in so far as the producing causes are removed. In this class of cases, salicylic acid is, perhaps, as near a true analgesic as can be expected. At all events, if the therapeutic properties of *exalgine*, are not markedly superior to other articles of this class, it will subserve little purpose other than to encumber an already too plethoric pharmacopœia.

THE PERMANENTLY SLOW PULSE, AND THE THERAPEUTIC INDICATIONS PERTAINING THERETO.

According to HUCHARD, who has carefully studied the various modifications of the pulse in their relation to disease, and especially to diseases of the circulatory system, the permanently slow pulse, while sometimes only a temporary (functional) phenomenon, (the result of toxæmia diphtheritic poisoning, tobacco poisoning), is in a great many cases associated with arterio scleroses and ischæmia of the bulbus.

The slow pulse is sometimes so marked a phenomena that it is not possible to count more than 28 to 30 pulsations per minute; frequently also this pulse is accompanied with vertiginous, or even syncopal or epileptiform attacks. It is rare that this symptom exists alone; it is generally associated with the symptoms characteristic of arterio-sclerosis, cardiac hypertrophy and angina pectoris, atheromatous arteries, advanced interstitial nephritis, dyspnœa; sudden death by syncope is quite a common termination.

STOKES and ADAMS of England, were among the first to call attention to the permanently slow pulse as a part of the morbid syndrome of certain chronic affections. This kind of pulse was also studied and described by HUTCHINSON, and has been mentioned not only in connection with cardiac-arterial disease, but also with cervical pachymeningitis.

HUCHARD concludes that in the treatment of the permanently slow pulse which is due to cardiac sclerosis and ischæmia of the bulbus, the vaso dilator medicines are alone applicable. It is to iodide of potassium or of sodium that he would have recourse, and to both these prefers nitro-glycerine, which directly antagonizes the anæmia of the nervous centers. He advocates the administration, once or twice a day, of three drops of a one-per-cent. alcoholic solution. The nitroglycerine may also be given in hypodermic injection, according to the following formula:

℞ Water, 10 grammes.
Alcoholic solution of nitroglycerine (1 per cent.), 10 drops.
M.

One gramme (one Pravaz syringeful) contains four drops; from two to four times a day a quarter of a syringeful may be injected.

From the point of view of treatment, it is necessary, then, to take great account of the state of the arterial tension, which may, for all clinical purposes, be sufficiently established by the auscultation of the heart. If you note over the aortic area a diastolic accentuation of the second sound, you may affirm that there is hypertension of the arteries. When there is hypotension, it is the pulmonary diastolic sound which is accentuated.

These data have a great therapeutic importance; thus, in the first period of arterio sclerosis of the heart, when the arterial pressure is exaggerated, one should have recourse to the vaso-dilators; when, however, the heart is enfeebled and the arterial tension diminished, the vaso constrictors, particularly caffeine, are especially indicated.

ADHATODA VASICA, AND ITS POSSIBLE VALUE AS AN INTERNAL BACTERICIDE.

Recent reports on studies of the diphtheritic bacillus by ROUX and YVERSIN, and LOWENTHALL'S investigations of cholera, point to a possible field of usefulness for the new East Indian drug, *Adhatoda vasica*. And if it fulfills the indications as presented by DR. H. H. RUSBY (Druggists' Bulletin), it is not improbable that it may also prove of exceptional value in combatting the bacillus of tuberculosis.

In India the plant has an extended reputation among the laity as a remedy for catarrhal and bronchial affections, including phthisis; but it promises to be of greater value since PROF. HOOPER discovered that it exerted toxic influences in increased degree as we go *downward* in the scale of animal and vegetable life. While not injurious to rice, which represents a high grade of development in vegetation, it is immediately fatal to *spirogyæ* and *lemnæ*,

which represent a low grade; hence it is employed in the East to destroy various species of floating and submerged aquatics that otherwise would interfere with the growth and production of this most essential cereal.

Again, immediately fatal to frogs, leeches, flies, mosquitoes, fleas, centipedes, etc., 15 grammes of the leaf administered proved powerless to affect deleteriously so high an organism as the dog!

Experiments, says DR. RUSBY, show that the reputed use of *Adhatoda* in destroying weeds in submerged fields, is founded upon very scientific principles. "The infusion, containing as it does the alkaloid (vascidine) in soluble combination, acts upon the cells by contracting their contents and causing their disintegration, as may readily be observed with the aid of the microscope."

Selecting a number of melons upon which a strong growth of mold was developing, DR. RUSBY dusted the diseased areas of half of them with powdered *Adhatoda*, when the process was immediately stopped, a dry surface resulting, the fruit remaining in sound condition for some days, after which decay took place from within. The other half of the fruit selected, not treated with *Adhatoda*, was destroyed in twenty-four hours.

Already the practical value of the drug has been demonstrated in the treatment of ringworm; and should it be found, upon further and more thorough trial to sustain its supposed character as a germicide, it follows we may find it of incalculable utility in combatting low organisms within the human economy. The difficulty with bacteria has always been, that they manifest greater vitality than the tissues which they permeate, and agents capable of effecting their destruction are usually even more destructive to the latter.

The history of *Adhatoda* would seem to indicate that even in its crude application, as followed in the Orient, it has been found valuable in intestinal disorders depending upon fermentative and putrefactive changes; and its value as a tænicide, and in the prophylaxis of infection, tends to confirm the supposition it will prove of practical utility in diseases caused by a specific germ. Another promising method of application would seem to be in connection with, or following the application of pepsin to the membranous deposits of diphtheria, coupled perhaps with its internal administration. In tuberculosis, its employment in solution by atomization would appear practical.

Florida has appointed a Board of Health which is to appoint its own secretary. The latter is to be a physician, and in receipt of $3,000 per year.

Notes and News.

A Doctor's Fee of Fifty Thousand Pounds.—According to the Medical Press and Circular, a curious case will shortly come on for trial in a law court in Saxony, the result of which will scarcely fail to be interesting to most practitioners. A medical man was in attendance upon the wife of a rich man in Saxony. The patient was exceedingly ill, and her husband was naturally extremely anxious. For the purpose, as it would seem, of stimulating the best energies of the practitioner, the husband promised, if his wife recovered, to give half his fortune to the doctor. The circumstances were propitious for the patient, and her health became established—in short, a complete cure was effected. This result having occurred to the entire satisfaction of the husband, the latter forwarded in the course of time a large sum of money in requital of the practitioner's services. The doctor, however, refused to accept the sum in question, and claimed as his reward the moiety of the fortune which had been promised him. The rich man's fortune was equal to £100,000, and although he seems to have agreed to dispose of half of this amount to the medical man in the event of the recovery of his wife, he now refuses to carry out his promise which he had given, and repudiates the claim which is being made upon him. Thus the aid of the law is about to be sought, in order to determine the point in dispute. The case for the doctor will in all probability entirely depend upon the legal evidence which he is able to produce of the agreement. It is scarcely to be supposed that any feeling of sentiment will be allowed to influence the result. Rash promises made in the presence of medical men, either by patients or their friends, are matters of almost common occurrence under certain circumstances, while the rapid declension of that feeling which is called gratitude, after the danger is past, is proverbial, as far as the practitioner is concerned.

A Lion Operated On.—An operation on a lion is so seldom performed that even when the surgeon does his duty in a somewhat rough-and-ready way the incident is worthy of record. Such a case has just occurred in the Clifton Zoological Gardens. A lion in that collection had for some time past been tortured by a claw growing into the flesh of its left fore paw, but owing to the uncertain temper of the king of beasts it was not considered prudent for any one to try and relieve him. The only way open to the keepers of the maimed lion was to place it in such a position that it could not turn round and then to seize a happy moment for the extraction of the claw. This was done by inducing it to leave first one cage and then

another until it was confined in one so small that it could not spring either to the right or to the left. Then, while the wounded paw was protruded through the bars, the claw was promptly whipped out of the flesh, into which it had grown more than half an inch.—From the *London Daily Telegraph.* [Not long since DR. CONKLIN operated successfully on a tiger of the N. Y. Central Park Zoological for the same malady. The creature was chloroformed and the claw removed, being carefully dissected from its matrix.—ED.]

Artificial Plants (For Teaching Botany).—In the teaching of botany there is frequently much difficulty experienced in demonstrating the characters of plants which cannot be obtained in the fresh state. Dried specimens, which often have necessarily been submitted to pressure in their preparation, commonly do not sufficiently well present the distinguishing features of the plants. To meet this difficulty, CHRISTINE JAUCH, acting under the supervision of R. STEIN, Inspector of the Royal Gardens at Breslau, has designed from living models a number of artificial plants for teaching purposes. They number in in all eighty, and are divided into eight series. They are all life-size, and the specimens submitted to us certainly do exhibit in a very marked degree the true structural features of the respective wild plants, while the natural colors of the various organs have been most successfully reproduced. Where it is not possible to obtain living specimens, we think that by the use of the "flora arte facta" the teaching of practical botany would be much facilitated.—*British Medical Journal*, March 2, 1889.

Tea Cigarette Dissipation.—The ingenuity of the women of London and Paris in inventing new dissipations is without limit. To the morphine habit the devotees of sensationalism have now added the practice of smoking tea cigarettes. Special grades of the finest tea are used, and the effect of the cigarettes is said to be delightful for fully an hour after one has been smoked. After that comes a reaction of nervous trembling and excitability, which is best subdued, according to a woman of title who rather goes in for all these things, by a thimbleful of frozen absinthe.—*Medical Register.*

The Hopkins Hospital.—The Johns Hopkins hospital at Monument street and Broadway, Baltimore, was formally opened May 7th. It is one of the finest and most complete institutions in the world, embracing 17 buildings, which cover four acres of ground, and surrounded by 10 acres more of beautiful grounds. Its construction was begun more than 10 years ago, and the cost was $2,050,000.

To the munificence of one man, Baltimore owes this great institution, the late Johns Hopkins. It was he who also founded and provided for the Johns Hopkins University.

The recent disaster at Dundas, Ontario, teaches that each train should carry the simpler forms of surgical appliances for the first treatment of wounds, burns, hæmorrhages, etc., in case of accident. It would entail no great expense if every car was provided with an emergency case, locked up in the same way as wrecking tools, containing tourniquets, lint, plaster and hæmostatics, each having full directions as to application printed upon wrappers.

In the deaths of PALMER HOWARD, of Montreal and McGill College, EDWARD T. BRUCER, of the University of Pennsylvania, JNO. SWINBURN, of Albany, and J. H. KIDDER, of the Smithsonian, North America loses four distinguished physicians, scientists and authors. DR. HOWARD stood at the head of the medical profession in Quebec, and DR. KIDDER was a chemist and zoologist of high rank.

DR. CHARLES J. B. WILLIAMS, Physician-Extraordinary to the Queen, and the author of "Diseases of the Chest," "Principles of Medicine," and "Pulmonary Consumption," died at Cannes, March 24th, æt. 85. He was one of the founders and the first President of the Sydenham Society, and also of the London Pathological Society.

The Health Commissioners of New York have designated DRS. F. M. PRUDDEN, H. M. BIGGS and H. P. LOOMIS to formulate a "brief but comprehensive statement regarding the contagiousness of tuberculosis, and the simplest means of protection from the ravages of the disease."

EDWIN CHADWICK, the sanitarian, now in his ninetieth year, and who has been at the front of nearly every reform in the United Kingdom for sixty years, has had his services rewarded by the Queen with K. C. B.

DR. F. E. STEWART has been appointed demonstrator of Pharmacy and Materia Medica in the Jefferson Medical College of Philadelphia.

The Faculty of the University of Vienna has conferred on DR. J. S. BILLINGS the degree of Doctor of Medicine *causa honoris.*—*Med. News*, May '89.

Therapeutic Brevities.

Dujardin-Beaumetz on Recent Advances in the Treatment of Diabetes—The most noteworthy innovation in the pharmaceutical treatment of diabetes is the administration of arsenicated lithia, which, though it may not have realized the sanguine anticipations of its introducer, Dr. Martineau, is nevertheless of service. The author gives eight grains of carbonate of lithium in a glass of Vichy water, to which two drops of Fowler's solution is added, to be taken before each meal. In diabetes of nervous origin, characterized by extreme polyuria, he gives 10-grain doses of antipyrine, sweetened with saccharin, three or four times daily. Its effect is to reduce the quantity of urine eliminated, as well as the sugar, the latter not only *pari passu*, but absolutely. Phenacetine and exalgine bring about the same results. He advocates the use of saccharin for sweetening purposes, and states that, provided the quantity ingested does not exceed two grains daily, no inconvenience is likely to be caused. Passing on to the dietetic treatment, the author speaks very highly of "soja" bread, the only drawbacks to the use of which are its disagreeable taste and laxative action on the bowels. With references to the use of potatoes, he points out that they contain 17 per cent. of glucose, as compared with the 19 and 20 per cent. of best gluten bread; hence, that potatoes are preferable to gluten of bread. He stipulates, however, that the quantity ingested shall not exceed 100 grammes (7 ounces) daily, as otherwise it would do more harm than good. He remarks that milk augments considerably the proportion of sugar in the urine, and the same remark applies to fruits, and especially grapes. To make up for the loss of carbo-hydrates, fats and viands containing fat are to be commended—caviar, sauerkraut, etc. Alcohol must only be given with caution, and in limited quantities.—*London Medical Recorder.*

Potatoes as a Substitute for Laparotomy.—At a meeting of the Imperial Society of Physicians in Vienna, Dr. Salzer reported a communication from Dr. Cameron, of Glasgow, upon the "potato cure," first recommended by the Scotch observer.

Dr. Cameron has used this plan of treatment in several cases of indigestion of large foreign bodies with gratifying success. Salzer has also had an opportunity to try the potato cure in the case of a boy who had swallowed a brass weight of twenty grammes. Potatoes cooked in a variety of manners, so as to encourage his appetite, were fed to the child. He took them willingly. After five days the brass weight was compelled to retreat, overwhelmed by the constant accessions of reinforcements from above, and passed out leaving the potatoes in possession of the field.

In the same manner he treated the ingestion of a set of artificial teeth, while in another case a scarf pin proved no match for its farinaceous antagonist. Dr. Salzer believes that this form of treatment will subserve a useful purpose in many cases in which, up to now, gastrotomy appeared to be the only form of relief available.

Dr. Hochenegg related the case of a boy who had swallowed a nail 6 ctm. long, in 1884, and had been treated by gastrotomy. He had swallowed a similar nail two years later, when the potato cure had proved successful.

Dr. Billroth spoke of the difficulty which exists in the removal of foreign bodies by laparotomy, and was strongly in favor of the potato cure.—*International Jour. of Surgery*, April, 1889.

Kiappyr, a New Fermented Milk.—Koumiss, fermented mare's milk, prepared by the Tatar tribes, has long been known, and has been employed medicinally both in Europe and the United States. A similar preparation has lately been brought to our notice under the name of kiappyr, which is somewhat poetically translated as "milk of heaven." It is made from cow's milk by means of a ferment called kapy or "prophet's grain," in allusion to a legend which ascribes its origin to Allah. The article originated among the tribes of the Caucasus, who value it most highly as a preservative of health and a medicinal agent. So jealous are they of its possession that its composition was for a long time kept secret. It is stated to be three and a half times richer in albuminoids than koumiss, and to be better borne by the stomach. It possesses the advantage of being obtainable at all seasons. Good koumiss, even in Russia, can only be made in certain places and during a few autumn months. Being of superior strength the treatment may, in many cases, be materially shortened by the use of kiappyr instead of koumiss. Prof. Waldimir Tichomiroff, of the University of Moscow, highly recommends it in cases attended by impaired nutrition, as dyspepsia, diarrhœa, chronic gastric catarrh, cholera infantum, asthma, bronchitis, anæmia, chlorosis, etc.—*Medical Register.*

Acetanilide as an External Sedative. — I have not noticed any reference to antifebrin as a local sedative or antipyretic, and am unaware of its having been used as such. It occurred to me to try the effects of it in this way, and the remarkable results in the few cases in which I have prescribed it leads me to anticipate that a more extended use of this remedy as an external application, will be found of great value. Country practice, especially such a healthy district as this is, does not afford much scope for experience in skin diseases, and I have only tried it for a few months. My usual plan is to prescribe it with lanolin or vaseline in the proportion of twenty grains to the ounce, combined with other ingredients that seem applicable to special cases. In obstinate irritable ulcers it soothes the pain and subdues the inflammation. In psoriasis, combined with some mercurial preparation, it acts like a charm. I have also tried it in erythema, erysipelas, eczema, herpes, urticaria, and other complaints associated with considerable irritation, and have found it a most useful adjunct to suitable remedies —A. H. Newth, M. D , in the *Lancet*, April 6, 1889.

On the Treatment of Pleurisy by Inhalation of Compressed Air.—Prof. Forlanini, of Turin, Gazette degli Ospitali, and London Medical

Recorder, February 20, 1889, strongly recommends the above method of treatment, chiefly with a view to promoting the expansion of the compressed lung after the fluid has been evacuated. And even in tubercular cases, which the author considers form more than half the cases of pleuritic effusion, much good is obtained, for the compressed air treatment increases the appetite, and the sense of well-being promotes tissue change, and generally improves the condition of the patient. The difficulty has hitherto been the complexity and costliness of the apparatus, but Prot. Forlanini has devised a more simple form. The difficulties in the nature of giddiness, palpitation, ringing in the ears, etc., are simply questions of dose and skill in administration, and are not drawbacks inherent in the system.—*Boston Med. and Surg. Journal*, April 11, 1889.

Medicinal Uses of Thymol.—Dr. Frederick Henry reports, in the Medical News, having used thymol with success in many cases of acute and chronic intestinal disorders, and in the diarrhœa of typhoid fever. Under the use of this medicament there is a fall in the temperature, a diminution in the number of the stools, absence of cerebral excitation, the tongue becomes moist and clean, etc.

The employment of thymol is based on its well-known antiseptic properties, and its action in the intestinal disorders above mentioned is dependent on its great insolubility, by reason of which it passes out of the stomach unchanged, and mingles with the contents of the intestines, where it neutralizes the toxic ptomaines which form in considerable quantities in the catarrhs of the gastro-intestinal canal. It is well known that many authorities believe that it is to absorption of these toxic products low forms of febrile disorders owe their origin.

Hamamelis in Hœmorrhoids.—Dr. A. DeWatreville writes of the treatment of mild cases of piles: "I have found, more than once, great relief or temporary cure speedily follow upon the free use of distilled extract of hamamelis as a rectal injection. The most convenient instrument for that purpose is the now well known syringe designed for the injection of glycerin as an excitant of rectal contractions. The quantity I use is two to four drachms frequently during the day and evening. I have not noticed any unpleasant side effects in those cases where I have had the opportunity of suggesting, and watching the effect of this application of hamamelis. It may be that those who have been disappointed trusted to internal administration, or too scanty local applications of the drug.—*Quar. Ther. Review*, April, '89.

Saw Palmetto and Salix Nigra.—Since the publication of the articles on Saw Palmetto as a reliable agent in the treatment of diseases of the prostate, and the Salix Nigra (pussy willow) in sexual disorders, we have had many inquiries as to its probable therapeutic value in detailed cases. "We have used both the palmetto and willow, in some thirty cases, and give it our approval. Of course, the condition of the patient will regulate the manner of exhibition." We are collecting notes of our cases, and when there are enough shall publish them. The fluid extracts which we use are those of Parke, Davis & Co., of whom they may be obtained.—Editor of *Pacific Rec., Med. and Pharm.*, April, '89.

Local Antiseptic Treatment of Erysipelas.—Dr. Nussbaum (Gazette Hebdomadaire, March 29, 1889) replaces antiseptic subcutaneous injections for erysipelas by the following treatment:

1. Anoint the erysipelatous surface with the following ointment:

℞ Ichthyol,
Lanoline, ää 15 parts.

2. Immediately after having applied the above, envelop the affected portion with salicylated cotton.

This mode of treatment arrests the progress of erysipelas, and diminishes the pain and the cutaneous inflammation, in the space of from a few hours to three days.

Cannabin in Exophthalmic Goitre.—A recent number of the "Practitioner," quoting from the "Wiener medicinische Presse," No. 41, 1888, publishes the following formulæ recommended by Valieri, who has used cannabin in three cases of exophthalmic goitre:

1. Four grains and a half of cannabin mixed with a sufficient quantity of sugar of milk to to make five pills; to be taken in twenty-four hours

2. Four grains and a half of cannabin, three ounces of distilled water, and one ounce of orange-flowers, mixed together; to be taken in teaspoonful doses in twenty-four hours.—*N. Y. Med. Journal*, April 20, 1889.

Stimulating Liniment.—

℞ Phosphorized oil, 50 parts.
Chloroform,
Tincture of nux vomica, ää 10 parts.

M.

Rub the paralyzed members three times daily for five minutes with a flannel saturated with this mixture; after which envelop them in salicylated cotton.—*L'Union Medicale*, March 24, 1889.

Glycerin Enemas in Hœmorrhoids.—Mr. Will. J. V. Harle, Hackney, states in the British Medical Journal, that having recently employed enemata of glycerine in one case, he is able to report success so far that in a few weeks a congested internal pile was reduced from the size of a large filbert to that of a pea. The patient injected two drachms of glycerin into the rectum every morning before going to stool.

Medical Progress.

On the Treatment of Acute Inflammations of the Middle Ear.—Acute inflammations of the middle ear are of two kinds: (1) Those which are not accompanied by suppuration, and (2) Those in which suppuration takes place.

The inflammations may be brought about by zymotic diseases, by injury, or cold; and should suppuration take place, the complications arising during its existence are often so serious that it is of the greatest importance to consider what is the best method of treatment for preventing, or (if discharge takes place) for arresting, the formation of pus. To one like myself, having the charge at a hospital of a special department for the treatment of diseases of the ear, the ravages one sees connected with these affections are peculiarly distressing, especially when one feels that by an early and proper method of treatment, they may be avoided.

The first warning symptom of commencing acute inflammation of the middle ear is pain, and usually acute pain—sometimes so acute and distracting that the patient may be said, without exaggeration, to go "mad with pain:" although in some few cases there is no pain at all; of these I have seen only a few examples.

When the ear is examined, and the surgeon finds that an acute inflammation of the tympanic cavity exists, he should immediately take measures to thoroughly purify the external meatus, so that, should suppuration unfortunately become established, the pus is discharged into an aseptic cavity, which, being occluded by a plug of antiseptic wool, prevents the intrusion of germs.

Means should also be at once adopted to arrest, if possible the course of the disease. Leeching behind, and more especially in front of the ear, will often instantly stop the pain, and lead to a subsidence of the trouble: next, fomenting the ear with hot water at short intervals, with a large sponge is desirable. Poultices are most objectionable, as they favor suppuration and are dirty. Extract of belladonna and glycerin in equal parts should be smeared around the ear, or chloroform and opium liniments should be applied; but nothing should be poured into the meatus that is not perfectly aseptic. Instillations of cocaine in a warm saturated solution of boracic acid of 20 per cent. strength, or of plain hot boracic lotion, may be used. The affected side of the head should be covered by cotton-wool. Medicines given internally should be opiates to ease pain, and other remedies suggested by the constitutional state of the patient. Antimony (if the patients condition allows of it) may be tried, and will often quickly lead to a subsidence of the trouble. The primary purification of the ear is best carried out by syringing with warm perchloride lotion, 1—2000; after which a little iodoform should be placed in the meatus, which is lastly plugged with salicylated wool.

Should suppuration occur, the discharges should be cleared from the ear by daily syringing the now aseptic meatus with warm boracic acid lotion, and the wool plug which forms the antiseptic dressing always replaced.

Under this perfect method of antiseptic treatment, the suppuration is, in most cases, arrested in a few days, and perforations of the drum rapidly heal, even if very large, and usually leave the hearing unimpaired.

Air should never be forced into the tympanic cavity during the acute stage, or, if pus is formed, before the abscess bursts; it will almost invariably lead to an increase of the symptoms.

After the discharge has lasted a day or two, air should be injected up the Eustachian tube, so as to clear the tympanum of pus and free the tube from obstruction—which is now easily done, the swelling having subsided. As the air is, I believe, filtered in its passage up the tube and so freed from germs, no harm can arise from that source by inflation. Pulv. acid. boracic. may be insufflated into the external meatus after each syringing; and if the discharge has any tendency to become chronic, pulv. aluminis should be mixed with the boracic powder. If this treatment were carried out in all cases, we should see very little chronic suppuration of the ear.

I am not in favor of opening the tympanic cavity by incising the drum when pus is suspected, except under very special circumstances. Opening an abscess of the middle ear seems a tempting surgical procedure, but practically it is not often needed; nature makes the best opening, and all cases do well if properly treated afterwards. If an opening is made it is often a very imperfect means of exit for the pus, and nature has to do the work herself by making somewhere else; but I think an incision is advisable when there is severe constitutional disturbance, or prolonged great pain, or when the abscess is slow in perforating the drum.

Acute inflammation of the middle ear usually stop short of suppuration, and quickly subside under the treatment recommended for arresting the course of the disease, the hearing also becoming quite normal, but should the hearing be left impaired, it will be improved by inflations of the tympanic cavity, which are best done with Politzer's bag. If much deafness remains, fluid exudations probably exist in the middle ear, and if they cannot be removed by inflations, accompanied by placing the head in a position to allow the fluid to run down the Eustachian tube by the force of gravity, the drum must be punctured and the fluid expelled into the meatus and so removed. Where the hearing is slow in recovering, injections into the tympanic cavity must be used through the tympanic catheter. These should be astringent, if slight exudations exist; or, if there is thickening of the mucous membrane, solutions of pot. iodid. or vapor of iodine are most useful. These, shortly, are the means I employ, and which I have seldom to supplement by other remedies.—Charles F. Pickering, M. D., in *Bristol Med. Chir. Jnl.*, March '89.

On the Use of Hypnotics, Sedatives, and Motor Depressants in the Treatment of Mental Diseases.—The author deduces the following principles of general application:

1. Make up your mind clearly from the symptoms present whether your patient needs a pure hypnotic, a general nervous sedative, or

a simple motor depressent before you use any of these drugs.

2. Use all such drugs experimentally in each case at first, and watch their effects not only on the higher nervous functions, but on all the organs and their functions, and on the general organism.

3. Even when there is sleep and quiet produced for the time with no apparently bad results, looks to the general feeling of *bien-être*, the recuperative energy, the expression of face and eyes after their use, and see if there is any undue reaction, as if some energy that must have an "outlet" were merely being "suppressed" for the time being.

4. Stop using such drugs as soon as possible, trying experimentally how the patient gets on without them.

5. Keep asking in every case: "Are we sacrificing in any degree the highest functions of mental inhibition by their use?"

6. Never omit general measures for the restoration of the health, nutrition, and higher nervous functions while you use such remedies.

7. Paraldehyde is the purest and least harmful hypnotic yet introduced when the insomnia is marked and intractable. Urethan and sulphonal cannot compare with it. Opium and chloral have special dangers and disadvantages.

8. Use the bromides as accentuators and prolongers of the effects of other drugs, and in order to be able to employ smaller doses than otherwise.

9. A combination of cannabis Indica and the bromides is the best and least harmful of general sedatives.

10. Hyoscine is the best pure motor depressant; but it needs care.

11. We never should narcotize an insane patient, or one threatened with mental disease.

12 It is as dangerous to use mere anodynes by the mouth or subcutaneously to relieve mental pain, as to subdue bodily pain by these means only, perhaps more so.

13 It is generally far better therapeutics to enable your patient to bear his mental pain and the effects of his insomnia by improving his general nervous tone and the nutrition of his body, than merely to produce quiet and sleep by drugs.

14. It is commonly a safer thing for the patient, and tends more toward natural recovery from his disease, to provide a physiological outlet for morbid motor energy, than merely to depress it directly by drugs.

15. It is almost always preferable to treat cortical exhaustion, irritability, and undue reflex excitability by rest and by improving the fattening and nutrition of the body than by continuous sedatives, the great exceptions being the treatment of epilepsy and convulsive affections by the bromides.—*Amer. Jour. Med. Sci.*, April, 1889.

THE PURGATIVE EFFECTS OF GLYCERINE ENEMATA AND SUPPOSITORIES.—In the Novosti Terapii, No. 4, 1889, p. 49, Dr. F. F. Mileeff, of St. Petersburg, details his extensive experience concerning the use of small glycerine enemata and suppositories in habitual constipations of various kinds. The main results of his observations may be condensed as follows:

1. In those cases where accumulation of fœcal masses takes place in the lower portion of the large bowel, a rectal injection of 1 or 2 drachms of pure glycerine in an adult, and of ½ to 1 drachm in a child, is invariably followed by stools occurring in two or three minutes.

2. The fæcal masses do not show any signs of liquifaction, or even softening; still, owing to lubricant properties of the drug; the act of defecation proves to be fairly easy and comfortable.

3. The enemata do not give rise to any painful or unpleasant sensations about the rectum; neither do any phenomena of rectal irritation supervene, even on a prolonged employment of the injections.

4. The purgative effects of glycerine should be attributed to its stimulating action on the nervous and muscular apparatus of the large bowel, which action is probably determined by the drug greedily extracting water from the intestinal mucous membranes with its nerve-fibres. The desiccation irritates the latter, and thus excites a reflex contraction of the intestinal muscular coat. The hypothesis finds a strong support in the fact that any dilution of glycerine with water markedly weakens its purgative action, and the more in proportion to the amount of water added.

5. Glycerine enemata are especially indicated (*a*) in the constipations of pregnancy, where ordinary water enemata are inconvenient on account of their considerable bulk, which causes discomfort to the woman; and (*b*) in infantile constipation caused by unduly prolonged feeding on milk alone, and associated with fæcal accumulations in, and consecutive distention of the sigmoid bowel. In cases of the kind, glycerine enemata are very useful on account of their energetic action in the intestinal muscles, and convenient because of their small bulk.

6. As to glycerine suppositories (containing half a drachm of the drug each), they are said to act well (in five minutes or so) only in such cases where no pure glycerine enemata were previously employed; otherwise they remain inactive. Hence, Dr. Mileeff is accustomed to commence the glycerine treatment of constipation with suppositories (a piece at bedtime), and passes to enemata as soon as the former cease to secure the result desirable.

7. As regards the apparatus for the enemata, Dr. Mileeff thinks any special contrivances are quite superfluous. At all events, he uses for the purpose an India-rubber urethral syringe with a piece of thick walled elastic tube on the nozzle.—*London Med, Recorder*,

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ADVANTAGES OF BROMIDE OF ETHYL AS AN ANÆSTHETIC.—C. E. Diehl, D. D. S., in Pittsburgh Medical Review, publishes an article on the above topic in which he says:

The bromide of ethyl seems to be the most eligible agent yet offered for the induction of transient anæsthesia. Though my experience in its use is limited to dental surgery, I believe it can have a wide application among physicians in those minor but painful operations—the opening of abscesses, the dressing of injuries, the examination of hypersensitive women, the operations for piles, for phimosis, and for many other conditions that will suggest

themselves to the reader in which the use of chloroform or ether is a matter of election; not because the absence of pain is not a good thing, but because the occasion may not seem to warrant the use of the troublesome anæsthetics.

The advantages of bromide of ethyl are: 1. Its rapid action; two or three minutes will produce complete insensibility to pain. 2. The extreme fugaciousness of its effect; the patient will regain complete sensibility within a few minutes after stopping the inhalations. 3. Very often there is utter insensibility to pain, with full control of the mental faculties. 4. The absence of all irritating properties in the vapor, and the consequent ease with which it is taken. 5. The absence of the after-effects, nausea, giddiness, etc., that usually follow ether or chloroform. 6. The harmlessness of the pure drug.

In my use of this agent in the extraction of teeth, the pulse and respiration remain normal and consciousness is but little impaired. I have administered the bromide of ethyl to perfect immunity from pain and yet had the patient informed me when the extraction might begin, and which teeth he thought should be removed. Indeed, so natural is the condition that I have found it quite difficult to tell when the patient is sufficiently influenced to be oblivious to pain. The expedient I have adopted to determine this condition is pinching the fleshy part of the arm. When the patient is unconscious of a severe pinch, I proceed with the extraction. The administration of the anæsthetic may, of course, be carried to the degree of complete unconsciousness, and the patient be kept in that condition for quite a while, if the dose given be large. The longest time I have had a patient under the anæsthetic influence was thirty minutes.

[We can endorse the above, having employed ethyl bromide repeatedly for opening abscesses and dressing minor surgical injuries.—ED.]

THE PRESENT ASPECT OF THE IODOFORM QUESTION. — The triumphant march of the germ theory received some four years ago an unexpected and, it seemed at that time, a final check. Just when it seemed to have been surely determined that unhealthy action in wounds was caused directly by the entrance of disease germs from without, and that the exclusion and destruction of germs would secure rapid and normal repair, the startling discovery was made that iodoform, which was widely used as an antiseptic, and which evidently promoted greatly the healthfulness and healing of wounds, was not a germicide, and might in fact be the vehicle in which germs were carried into the wound. In an article in the Annals of Surgery, March, 1889, Dr. Van Arsdale discusses the matter fully, showing what interesting discoveries have resulted from the refusal of iodoform to fit into the old theory, and giving the literature of the subject.

Investigation has proved that disease germs are aided in their septic work by certain chemical substances called ptomaines, which are formed in the tissues as a result of their action upon the tissues. Iodoform, while it does not destroy nor seriously hinder the germs, does destroy the ptomaines. Thus, we may suppose, the tissues, not being enfeebled by the action of the ptomaines, are enfeebled either to destroy the germs or to resist their malign assaults.

Clinically, certain facts have been developed which are of practical value, whatever may be the fate of the scientific theories involved. In dressing wounds the surgeon must hereafter use two different sets of antiseptics. He must first seek, as far as possible, to exclude disease germs or to render them inactive, and for this purpose he must use germicides, such as corrosive sublimate. He must next endeavor, by applying agents like iodoform, to prevent the formation of poisonous chemical substances in the wound, or to decompose them and render them inactive if once they have been formed. These latter agents, if they, like iodoform, contain disease germs, must be disinfected before they are applied. Iodoform should be washed in corrosive sublimate solution. It should be brought into as intimate contact as possible with the surface of the wound, and after its application the wound should be covered with germicide and protective dressings.—*Medical Record*, April 27, 1889.

THE TREATMENT OF SEMINAL EMISSIONS. —The treatment of cases of nervousness from masturbation, or more properly nervousness *about* former masturbation, is commonly not satisfactory, but there is one measure which has proved so useful in several cases under my care, that I think it worth while to note it that it may be tried by others. It was, so far as I know, originally suggested by Professor John H. Brinton some years since, and I believe has proved of value in his hands. It consists in the application of a blister over the sacrum.

The measure is a somewhat severe one, but the patients are apt to have suffered many things of doctors, from advertising quacks up, and various treatments, mostly of a depressing or a merely palliative sort, with small results, and I find they offer little objection. What is more, the improvement is usually lasting. Of course, the use of the blister need not preclude other and additional treatment, hygienic and medicinal.

The cases are, roughly speaking, divisible into two classes. One has emissions, usually during sleep, without erection or with only an attempt at erection; in the other the semen is only voided during erection or upon some irritation, mental or physical. In the former sort, the treatment should be tonic. I like a mixture of dilute phosphoric acid and strychnia, which I generally give by the following formula:

℞ Strychniæ, gr. j.
Acidi phosphorici dil, f ʒ ij
M. Sig. 25 drops in water after each meal.

In the latter kind, bromides, or, better, a mixture of hydrobromic acid and bromide of soda or of lithium, have done me good service.

Of course, the usual precautions must be taken that no old stricture be left to keep up an irritation, and hygienic directions given—a hard bed, not too heavy coverings, light suppers, little meat, a sponge bath in the mornings, the bowels kept free, and all causes of sexual excitement avoided.—J. K. Mitchell, in *Univ. Med. Mag.*, May, 1889.

New Use of Cocaine.—Knowing that surgeons are often called on, in various sections of the country, to do operations on the horse, and that one of the greatest hindrances to these operations is to secure the animal so the operator will not be constantly interrupted in his work, to overcome this difficulty I have been using a 5 per cent. solution of muriate of cocaine, injected at the point of incision, which destroys the sensibility completely, so the animal will not even move his leg or any other part, and does not show any signs of pain whatever. There is some risk in throwing the horse in order to secure him; and further, it does him some damage in tying him down or securing in stocks, and this overcomes all of these difficulties. The solution should be injected under the skin all around where you expect to cut, and even in the tumor. I have removed a tumor of considerable size from the anterior surface of the front leg of a horse, without any indication of pain whatever. I do not know whether an anæsthetic could be administered to a horse without much danger or not, but it is seldom done. This solution, or even stronger, could be used with safety. For small tumors, such as warty growth, the injection need not be introduced anywhere except at the base. This is also true of all pedunculated tumors. It can be used also in the other animals, such as the dog, although they can be anæsthetized with much less trouble and risk.

I do not know that the cocaine has been used this way before in animals, but I have been using it for some time in the human for the removal of tumors, but this part is not all original with me; but the use in the horse it is, so far as I know.—L. G. Mardman, M. D., in *Atlanta Med. and Surg. Journal*, April, '89. [Cocaine is largely employed by veterinarians at the present time, as also are chloroform and ether. The horse is kindly amenable to chloroform anæsthesia especially.—Ed.]

Rapid Cure of Fistula in Ano.—Longo has an elaborate thesis in the Bulletin Generale de Therapeutique, in which he strongly advocates what he is pleased to call the "antiseptic treatment." It consists simply of the complete excision of the entire fistulous tract, bringing the parts together with sutures much as in laceration of the perineum, through the sphincter, of course under the strictest aseptic precautions. His conclusions are:

1. The method ordinarily employed in the cure of anal fistula, while not entirely exempt from risk, necessitates constant attention for at least thirty days.

2. From the employment of the antiseptic method, a cure is possible in which the result may be attained in a much shorter time.

3. These processes, already employed with considerable success, consist essentially in the entire excision of the fistulous structure, and the reunion by first intention of the outer surfaces.

4. Cure is ordinarily obtained within ten days.

5. The majority of fistulæ are amenable to this treatment, which is exempt from danger, which is usually not followed by relapse, and whose employment is not accompanied by any insurmountable difficulties, with the single exception of the rigorous application of the antiseptic method.

6. When the fistulæ are united, accompanied by extensive development of pathological tissue, or when their rectal orifice is situated very high up, or when they are accompanied by hæmorrhoids—then only is this method not applicable.—*Kansas City Medical Index.*

Anhalonium.—This herb which is about to be introduced to the medical profession belongs to the cacti. It is procured from Mexico, where it is known as Muscale button, and is used by the natives as a sort of condiment and also as a sleep producer. We are all familiar with cactus grandiflorus and cereus bonplandi, as remedies having a specific effect in certain conditions of the heart; but this agent, like aconite, reduces the force and frequency of the heart, and if continued too far, acts as a general depressant. At first the surface seems cool, but finally becomes warm, and the circulation seems very free. It produces free, regular and deep breathing without oppression, followed by drowsiness and natural sleep. It sustains the respiration and stimulates actively the functional activity of the heart, by increasing its actual tonicity.

It seems to produce some excitement if given in full doses to nervous patients, but in plethoric people, these effects are not observed.

In angina pectoris, asthmatic dyspnœia, or dyspœnia from heart failure, and in pneumothorax it produces excellent results. As the cactus grandiflorus is a superb special sedative under certain circumstances, this promises to be even superior. It has a direct action on the feeble heart, irregular and intermittent. It well deserves careful and sympathetic investigation.—*Chicago Med. Times*, April, 1889.

Indian Hemp in the Treatment of Chronic Chloral and Chronic Opium Poisoning.—E. A. Birch, M. D., M. R. C. P., reports, in London Lancet, March 30, 1889, two cases in which Indian hemp was of much service in chronic chloral and opium poisoning. He writes as follows:

The chief point that struck me was the immediate action of the drug in appeasing the appetite for the chloral or opium, and in restoring the ability to appreciate food. It seems to supply the place of the poison, to stimulate the appetite, to increase the heart's power, and thus to produce sleep indirectly, as well as directly, by its own sedative effect. Moreover, I am convinced that it is a diuretic, and that this action helped in the above cases. I prescribed the cannabis simply with a view to utilizing a well-known remedy for insomnia, but it did much more than procure sleep. I think it will be found that there need be no fear of peremptorily withdrawing the deleterious drug, if hemp be employed. I know that the mere withdrawal of chloral will effect a cure, but at the expense of an interval of suffering which need not be incurred; and the same in a different degree holds true of opium. Upon one point I would insist—the necessity of concealing the name of the remedial drug from the patient, lest in his endeavor to escape from one form of vice he shall fall into another.

The Medical Age.

Vol. VII. DETROIT, MAY 25, 1889. No. 10.

Original Articles.

RECENT PROGRESS IN THE TREATMENT OF DIABETES.

BY DUJARDIN-BEAUMETZ.

The therapy of diabetes has been enriched the past few years by valuable acquisitions, which I will sum up briefly as possible in this paper. They pertain to both the pharmaceutical and hygienic treatment of this affection. I will begin with what pertains to the pharmaceutical treatment.

The *lithiated and arsenical medication*, proposed by the late MARTINEAU, if it has not given the results claimed, viz., the cure of sixty cases of diabetes out of seventy, is nevertheless useful, especially in arthritic cases. The most simple way of prescribing MARTINEAU'S remedy is:

Take before each meal in a tumblerful of Vichy* or Vals† water, one of the following powders, adding to the mixture, two drops of FOWLER'S solution of arsenic:

℞ Carbonate of lithia, 3 ijss.
Divide in chart. No. xx.

But it is especially the introduction of the analgesic antithermics into the treatment of diabetes which may be looked upon as a step in advance. In pointing out the energetic action of antipyrin on polyuria of nervous origin, and in showing the glycogenic exchanges of the liver modified by the action of this medicament, HUCHARD and LEPINK have indicated the course which we should pursue in the application of the antipyrin to the treatment of diabetes, and I was one of the first to point out the good results which may be obtained.

It diabetes of nervous origin, and in particular in diabetes with very abundant polyuria, we may reduce in very notable proportions the quantity of urine voided in the twenty-four hours, without augmenting the figure of sugar per litre, and we may even diminish the latter by the antipyrin treatment, and this without the intervention of a rigid alimentary regimen.

The dose to employ is from thiry to forty-five grains a day. I prescribe this medicament in this way:

* Hanterive.
† St. Jean.

Into a glass of Vichy water, sweetened with saccharin and flavored with a little rum or Kirsch, I dissolve one of the following powders, and order the whole to be taken at one dose:

Antipyrin, 3 v.
Divide in chart. No. xx.

One powder three or four times a day. I have never seen any ill-results from this medicine, however long continued; nevertheless ALBERT ROBIN affirms that at the end of a week albumen will appear in the urine.

Antipyrin is not the only analgesic antithermic which may be utilized in such cases; phenacetin also possesses the same properties. But there is a chemical body which DR. BARDET and myself have just been studying, which possesses in a higher degree than antipyrin the power of diminishing the quantity of sugar and of urine. I refer to *exalgin*.

In a recent note to the Academy of Sciences, BARDET and I have shown the powerful analgesic action of this new remedy, which is chemically designated by the long name of *orthomethylacetanilide*. This substance, which is very soluble in water containing a little alcohol, is given in the dose of eight grains morning and evening. With exalgin we have caused the figure of sugar to fall more than one-half in a certain number of diabetics.

Saccharin will serve as intermediary between the pharmaceutical and diabetic treatments. If saccharin is not an aliment, it is a precious medicament, as it takes the place of sugar, and thus satisfies the appetite of diabetics for sweets. It is advisable, then, to employ saccharin in all cases of diabetes where the use of sugar cannot be dispensed with; and as long as you do not exceed the quantity of 10 centigrammes (2 grains) a day, you may continue saccharin as a part of the daily dietary of your patients, and they will not be likely to experience any harm from it.

Saccharin renders us special service in sweetening the ordinary beverages, tea and coffee, lemonade, etc. I have even seen saccharin used to advantage in sweetening pies and cakes.

As for the dietetic regimen, properly so called, this has been greatly reinforced by the introduction of *soja bread;* the subject of soja has been fully treated by EGASSE (see note appended to this article).

The only disadvantages connected with soja

bread are, its disagreeable taste, and its purgative action. At any rate, soja bread and soja cakes constitute a great advance upon gluten bread.

I have been one of the most earnest advocates of the use of potatoes in the treatment of diabetes, but I have seen with regret that some have gone a good ways farther in this direction than my judgment would warrant, making this vegetable the principal part of the daily fare of their patients. I have simply said that if we take into consideration accurate analysis, which give seventeen per cent. of glucose in potatoes, and 19 to 20 per cent. in an equal weight of the best gluten bread, we should have to give the preference to potatoes; but I insist that in ordering either the one or the other as an article of diet, the words *equal weight* should be borne in mind, and it will not do to exceed 100 grammes (a little more than three ounces) of boiled potatoes for breakfast and dinner; more than this would be harmful.

I had also thought of using fromentin, which DOULIOT has obtained from the embryos of wheat, in the treatment of diabetes. Unfortunately, if this substance constitutes a highly nitrogenous article of diet, the large percentage of starchy matters make it unsuitable for diabetes.

LEGAY'S ANALYSIS OF FROMENTIN FLOUR DEPRIVED OF FAT.

Moisture	5.25
Ash	6.64
Fatty matters	0.78
Azotized matters	41.70
Amylaceous matters	15.20
	99.57

Apropos of diet, I observe that some physicians prescribe milk and allow fruits to their diabetic patients. New milk augments in notable proportions the figure of sugar in the urine, and it is the same with fruits, and particularly with grapes.

On the other hand, sufficient importance has not been given to fatty matters as an element of the diabetic dietary, for fats might with advantage supersede starches, and furnish the hydrocarbon needed for the administration of the diabetic.

One cannot be too severe in the interdiction of spirituous liquors; it must be remembered that the diabetic patient easily falls a victim to alcoholic indulgences, and the more readily from the fact that as alcohol is rapidly eliminated, he is especially rebellious to the ordinary intoxicating effects of the beverage. Hence a great many diabetics become inveterate tipplers.

In concluding, I will give you the rules which I am in the habit of laying down for the alimentary hygiene of my diabetic patients:

The patient will avoid starches and sweets; will eat freely of eggs, meats of all kinds, fowl, game, shell-fish, crustaceans, ordinary fish, and cheese. All green vegetables are permitted, except beets, carrots, and turnips. Fatty foods are permissible; sardines in oil, tunny fish in oil, smoked herrings in oil, pork, butter, fat of geese, *rillettes*, bacon fat, caviar, sauerkraut with pork fat (*choucroute glernie*), etc.

Soups with cabbage, bouillon with poached eggs, onion soup, and stews of all kinds without bread or flour.

Soja bread, or 100 grammes boiled potatoes with each principal meal.

To sweeten drinks, use pastilles of saccharine.

Strictly forbidden: All starchy foods, bread, pastries, crackers, macaroni, sugar, and things sweetened with sugar, chocolate.

Milk is prohibited, unless taken in small quantity. All fruits are forbidden. All sweets, ice-cream, preserves.

Vichy water may be permitted for a drink, or Vichy diluted with some dry wine. No spirituous liquors, no beer.

Such are the principal points in the treatment of diabetes, to which I wish to call the attention of the readers of the MEDICAL AGE. It is well understood that there are grave forms of diabetes, over which we have little influence. Fortunately, the far greater number of cases are tributary to a special treatment, which, if it does not cure diabetes, renders almost to nil the quantity of sugar contained in the urine, and opposes all the complications which have in glycosuria their point of departure; we ought, therefore, to attach the greatest importance to the rigorous carrying out of the dietetic treatment.

NOTE ON SOJA.

Soja is a preparation from the seeds of the Japanese Annual *Glycine hispida*.

The beans of this plant were analyzed by BLONCHEL, and found to be almost free from starch granules. This fact renders the Glycine hispida of special interest to physicians in connection with the alimentary treatment of diabetes. This plant has been lately introduced into some parts of Europe, as Austro Hungary, where it is now cultivated. It belongs to the family of Leguminosæ, and is very rich in azotized and fatty principles, and with a very small percentage of starch or sugar.

Soja bread is now taking the place of glutin bread in the dietary of diabetes in many parts of the world.

TREATMENT OF TAPE WORMS.*

BY DR. L. DUCHESNE.

There are three kinds of tæniæ observed in France: 1. Tænia solium, improperly called

* Read before the Society of Practical Medicine, March 15, 1889.

solitary, because there are several frequently found in the same individual.

2. The medio canellata, of which great numbers may exist at the same time in the individual. This intestinal worm is found chiefly in individuals who eat raw meats, beef and pork.

3. The large bothriocephalus,(Bothriocephalus latus), which is easily recognized from the others by the following characteristic: placed in a mixture of alcohol and water, the tænia solium and medio canellata remain white, while the bothriocephalus becomes grayish, which fact discovered by the great naturalist, PALLAS, gave to it the name *tænia grisa*.

Rare in France, this worm is frequently found in Switzerland. It has been proved by direct experimentation that the helminth comes from the livers of eels, and from the flesh of several fishes in Lake Geneva which contains their larvæ.

None of the symptoms which the different kinds of tænia produce in patients are sufficient of themselves to warrant a diagnosis of tape worm. It is necessary that one or more joints shall be passed in order to make the diagnosis certain.

The presence of the worm being recognized, it is necessary to determine the species to which it belongs, in order to administer to the patient the vermifuge which shall the most surely effect its expulsion.

I will not take up your time with an enumeration of all the substances which have been employed to rid patients of their tape worms.

Some, like powders of iron, zinc, charcoal, are intended to kill the worm; but I think them calculated to harm the intestinal mucosa more than the tænia itself.

The other remedies are called specifics. I will speak only of the three principal tænifuges: 1, the fresh rind of the pomegranate root; 2, pelletierin; 3, capsules of the ethereal extract of male fern, and calomel.

I have been able by personal experience to judge of the relative values of these three medicaments. My duties as physician of the municipal police, bring me in daily relationship with these guardians of the public peace, who, owing to the nature of their occupation can never eat at regular hours, who live on badly cooked meat, and especially pork, which accounts for the fact that these officers are frequently infested with tænia.

The rind of the pomegranate root succeeds only when it is fresh. In order to be certain of having a fresh article, I have my patients buy a young pomegranate tree at HALLES'. I peel the rind off from the root, and steep 60 grammes (2 ounces) in 750 grms. (a pint and a half) of water, first letting the bark soak for two hours in the water when cold; then I boil this down to 500 grammes (one pint).

The patient is made to drink this pint of liquid all at once in the morning on rising.

In carrying out this treatment (as, in fact, is the case with the other modes) you are obliged to deprive the patient of his meal the evening before, and it is well to give him a lavement of 60 grammes (two ounces) of *mel mercurialis*.

A purgative should be given one hour after the administration of this decoction.

Pelletierin also requires to be given along with a considerable quantity of liquid.

After the dose of pelletierin, it is necessary for the patient to drink a large tumblerful of sweetened water, and one hour later you must administer 30 grammes (one ounce) of German tincture of jalap in another large glass of sweetened water.

Practically these are obstacles, especially in the case of women who do not generally care to drink a great deal.

But the greatest objection which I have to pelletierin is, that it often causes very severe attacks of vertigo shortly after the administration of the medicine.

The best remedy in this condition of things is, to make the patient lie down and close his eyes.

There has been brought to my attention lately,the case of a patient in whom the attacks of vertigo never came on till he went to stool; he was obliged because of the movements of the bowels, to remain sitting on a vessel of warm water, as is necessary in such cases, and whenever he attempted this, he was taken with the vertigo and was obliged to be supported by something in order not to fall.

Nausea sometimes accompanies the administration of this tænifuge.

On the other hand, it should be conceded that it is more active than the root of the pomegranate, and gives a ratio of 79 to 100 per cent. of success.

Some define a successful result to be the passage of the worm with or without the head: others, on the contrary, admit the result to be successful only when they are sure of having obtained the head. I know from a long experience how difficult it is to find the head when it is separated from the body.

In order the better to effect this search, I pour off the water from the chamber vessel, filter the solid part through a rather fine sieve, and put the solid particles in the bottom of a blue basin. By their white color the little fragments of tænia are quite easily detected when contrasted with the blue color of the dish.

In a recent case of a patient from whom I had removed a *tænia medio-canellata*, it was with great difficulty that the head was discovered: The assistants were about to cease the search, when it was found in the midst of a mass of mucous.

I rank myself on the side of those who regard as a successful result the passage of the worm without the head, which is always very difficult to find: the patient will have, at any rate, an interval of four months of rest. To the two tænifuges of which I have just spoken, I much prefer the ethereal extract of male fern and calomel, according to the following formula:

℞ Ethereal extract of male fern, 4:00 (60 grains).
Calomel, 1:08 (gr. xvj).

Make 16 capsules like the above, and give two every 10 minutes. This formula originated with my confrère, DR. CREGNY, and our regretted president LIMOUSIN.

One great advantage which I find in this preparation is that the patient is not obliged to drink anything, and at the same time he takes the medicine which is to kill or render insensible the worm, he takes the purgative which is to expel it.

There are however, two slight disadvantages which result from the employment of this tænifuge. Some persons, women especially, have difficulty in swallowing the capsules. I have sought to remove this difficulty: and I think that we may conveniently administer the mixture of etherial extract of male fern and calomel in a liquid menstruum. I find in simple syrup a good excipient, or syrup of orange with some aromatics to disguise the nauseous bitter taste of the male fern.

The second disadvantage is that sometimes these capsules cause colic. I easily remedy this by administering, twenty minutes before the capsules (as DUJARDIN-BEAUMETZ has advocated), a full dose of antipyrine—15 grains; this anæsthetizes the intestines. Thanks to these tænifuge capsules, I have never failed, in hundreds of cases, of causing the expulsion of the tænia, even when other treatment has been unavailing. I should add, that the bothriocephalus is more amenable to treatment by male-fern than by any other remedy.

The treatment of tænia in children is not easy. I have constantly succeeded by making them pursue the following treatment:

Take, for example, the case of a child five years old:

1. Abstinence from supper the evening before.

2. The following morning this preparation:

℞ Etheral extract of male fern, 4 grammes.
Calomel, 40 centigrammes.
Sugar, 8 grammes.
Gelatine, q. s.

Make into a jelly of ordinary consistency. Children take this kind of electuary very readily.

It has been recommended that the patient have a lavement of salt and water, or a purgative lavement, as the worm is passing the anus. This is easy in theory, and difficult in practice. In the case of one patient the worm issued at 1:30 P. M., and though six lavements of salt and water were given, and 60 grammes (2 ounces) of mercurial honey, no result was obtained till 5:40 P. M. It is easy to understand, in fact, how difficult it is for patients to take lavements in the sitting posture, since it is necessary that they shall be over a vessel of warm water to prevent the worm breaking by its weight, and since, when the worm is at the anal orifice, it is almost impossible to keep up the lavement in order that this may provoke intestinal contraction. Whether you employ this or that tænifuge, even if you call into use the whole therapeutic arsenal, I am persuaded that the chief causes of failure are due to the too tardy administration of the purgative after giving the anthelmintic which is designed to stupify or destroy the worm; and as evidence of this, I may allude to the almost constant success which I have had with the tænifuge capsules in which the calomel is administered along with the male-fern.

I do not know that we have as yet found the ideal tænifuge, and I hope that pharmacists will continue their endeavors to extract from the known active anthelmintics, alkaloids which, in small volume, will produce without danger or harm, the expulsion of the tapeworm.

ON THE TREATMENT OF CARBUNCLES.

BY E. P. HURD, M. D.

A carbuncle may be defined as a large boil, or an aggregation of boils. One characteristic is tumefaction; there is a hard painful swelling of variable size; it is not unusual to see a carbuncle as large as a pint bowl. These swellings may appear on any part of the body; on the face, temples, hairy scalp, breast; but the favorite site is the back of the neck and the buttocks.

Another characteristic is suppuration. This pus production is the effect of certain microbes which commit their ravages in the derm, and in the subcutaneous cellular tissue. Prominent among these micro-organisms, which causes pus formation, is the *staphylococcus pyogenes aureus*. This micrococcus being invariably associated with common carbuncle, is regarded by most modern authorities as the pathogenic agent. But this same microbe along with the *staphylococcus pyogenes albus* is also believed to be the cause of ordinary abscesses.* If it be the infectious agent of boils, and carbuncles as well, we have not as yet any sufficient explanation of the greater virulence and malignancy manifested by this

* Vide Hallopean, Rosenbach

microbe in the carbuncular affections. Certain it is, that in the carbuncle we have not merely suppuration, we have extensive necrosis also. There are shreds of dead cellular tissue spreading in various directions, and a central solid core ready to slough, or in the process of sloughing. The necrosis is generally limited to the skin and subcutaneous cellular tissue; it is rare that the muscles and fascia are invaded.

We do not yet know how this microbe causes the death of the skin and cellular membrane. It seems to enter by the hairs or perspiratory pores, and breed first in the sweat glands or hair-follicles,* thence it diffuses itself through the derm and cellular tissue, setting up a destructive inflammation. BILLROTH† supposes that this gangrene of the skin is induced by an early, perhaps primary occlusion of small arteries, possibly of the vascular net-work around the sebaceous glands; but I do not know that there have been any observations to prove that such occlusion actually takes place.

That the *staphylococcus pyogenes aureus* is able of itself, under certain conditions, to produce furuncular inflammation, is proved by an experiment of GARRE upon himself. "He rubbed into the perfect healthy skin of his arm several staphylococcus colonies taken from osteo-myelitic pus, and these, penetrating the excretory ducts of the cutaneous glands, produced furuncles in large number."‡

All physicians who have had any experience with furuncular or carbuncular diseases, recognize a certain predisposition as an essential factor of the pathogeny. The victim of carbuncles has been debilitated by some cause; the vital resistance of the derm has been lowered, and the infectious micro-organism finds in the cuticular tissues a good culture field. Here is the whole story. The debilitating influence may have been fatigue, worry, a cold, vicious indulgence, excess of any kind; it is needless to say that this predisposition may also be caused by chronic disease, especially diabetes and tuberculosis. One of the worst carbuncles which I ever saw was on a common drunkard, J. L., Irishman, aged 55, whom I attended twelve years ago while city physician. It was situated between the shoulders, was as large as the two fists, and when I first saw it, was exuding a sanious, purulent matter from numerous sloughing orifices on the summit and sides of the swelling. This patient was very cachectic; his surroundings were bad, his appetite and digestion poor—food of a right quality could not readily be obtained on account of his poverty; and it was with difficulty that he was sustained during the long, tedious sloughing process. I confess to having treated this case somewhat timidly. I had not then assimilated the modern antiseptic views, and believed in *poulticing* boils and carbuncles. This poor patient was confined to his room for three months, much of the time suffering extremely. After his recovery, he left off his drinking habits, but he has never been the robust man that he was before his painful experience with this carbuncle; he has, in fact, been much broken in health.

Several years later I was called to attend Mr. A. T. B., mountain hotel proprietor, aged 75 years, debilitated from age, overwork, and saccharine diabetes. He was having a succession of boils and carbuncles; as fast as one set would get well, another would appear. One large carbuncle was seated on the left breast; when this got well, another came on the left leg; then he had a horribly painful swelling of the same kind on the left temple. He was kept in bed, well fed, and given sulphide of calcium pills, $\frac{1}{4}$ grain every four hours. These carbuncular swellings were all treated by deep crucial incisions, then poulticed or dressed with cloths or sponges soaked in a two-per cent. carbolic solution. Immediate relief always followed the free incisions, made to the very base of the tumor; in a few days the core would separate, and the wound would rapidly fill with granulations. In incising the carbuncle on the temple, I cut the temporal artery; the bleeding was free, but was controlled by pressure. One week afterwards the arterial plug gave way, and the hemorrhage was considerable. There happened, fortunately, to be a medical student stopping at the hotel, who found the bleeding artery and tied it.

The method of crucial incisions has long been a favorite method of treating carbuncles, and certainly, when thoroughly done, greatly abbreviates the duration of the malady. Some time ago I remember to have read in some medical journal, a recommendation not to poultice a carbuncle when opened, but to apply a large sponge wet in some disinfectant solution, carbolic acid or corrosive sublimate. This is a very sensible procedure, as I can testify from experience. The sponge should be large enough to completely cover the carbuncle and may be cut into shape so as to fit over it like a cap. Before being applied, it is dipped into a sublimate solution 1 part to 2000, or a two-per-cent. carbolic solution; a little iodoform may then be dusted into the cavity of the carbuncle, down to the bottom of the incision, and the sponge is then adjusted and confined by a few turns of a roller bandage. There is no need of poulticing, for pain and tension are removed by the incisions; the microbes are more effectually stopped in their destructive depredations by the antiseptic liquid which is thus enabled to penetrate every part, than they can be by any other

* Hallopean.

† Surgical Pathology, Am. Ed., p. 262.

‡ Flugge, Die mickroorganismen, etc., page 148. (Cited by Dr. Louis Heitzmann, in Medical Record, August 6th, 1887, p. 154).

method; the dead shreds of tissue will rapidly separate under the disinfectant dressing, and all the discharges will soak into the sponge and be kept from putrefaction. Night and morning the dressings are renewed; the sponge, full of purulent matter and debris, is thrown into a bucket of boiling water, and afterwards cleansed, and again soaked in the sublimate solution for a fresh application. Simultaneous with the separation of sloughs, granulations make their appearance, and *restitutio ad integrum* rapidly takes place.

I had been led to suppose that this was about all that could be done to expedite the cure of a carbuncle. One day last summer I was called to attend J. F., ice dealer of this city, a strong, robust man of 55 years, who was suffering from a large carbuncle on the back of his neck. For several nights Mr. F. had had no rest. His occupation seemed to predispose him to carbuncles, for this was the third which he had had within four years; in fact, he said; whenever he began to feel himself run down, a carbuncle would make its appearance.

Mr. F. had lost sixty days time the year before from a similar carbuncle, and was very anxious that something should be done which might save him from so long confinement to his house on this occasion.

I proposed the crucial incision, and arranged to come to the house of Mr. F. that afternoon (August 16th) with ether, prepared for the operation. At 3 o'clock P. M., I was there with my friend, Dr. G. W. JONES, of Cambridgeport. The patient was anæsthetized, and the ordinary crucial incision made. My friend proposed that we should further assist nature by dissecting out all shreds of gangrenous tissue, curetteing the cavity of the carbuncle, and treating in the most antiseptic manner possible. This we carried out very successfully, despite a good deal of bleeding. With curved scissors large flakes of sloughy cellular tissue were dissected out, and with an iron spoon (having no better instrument with us) the interior of the carbuncle was thoroughly scraped out. All prolongations of the dead cellular shreds were followed as far as possible into the surrounding tissues, and either cut out, or scooped out. The large irregular open wound which we had made was then washed with hot water, iodoform and boric acid were freely dusted in, and the cavity was packed with a sponge which had been soaked in VAN SWEITEN'S sublimate solution.

I never before witnessed such a rapid recovery from what is ordinarily a long, tedious, and painful affection. The patient did not at any time have pain enough to require an opiate. There was very little sloughing and suppurating, for we had pretty thoroughly cleaned out the carbuncle. The dressings were renewed twice a day, and the most thorough antisepsis maintained. The wound rapidly filled up by granulations. At the end of a week, MR. F. was able to show himself out doors and on the street, and in a fortnight to attend to some light work. At the end of a month from the commencement of the carbuncular swelling, he was practically as well as ever. At the time when I first saw him, he had been suffering just a week.

In the British Medical Journal, March 24th, and 31st, 1888, appeared two articles on the subject of excision and scraping of carbuncles; the one by MR. PAGE, Surgeon to St. Mary's Hospital, London, the other by MR. RUSHLIN PARKER, of Liverpool. These articles are referred to by DR. ROBT. F. WEIR, in a recent article in the Medical Record. DR. PAGE presented three cases of carbuncle treated by scraping, and MR. PARKE reported five cases. In all these cases, the improvement was prompt and marked. DR. WEIR, in commenting on these cases, corroborates from his own experience the good results that were obtained by the other surgeons, and affirms that the risks of pyæmia, septicæmia, and exhaustion are much lessened by this process, while he is convinced "that the immediate constitutional effects of pain and fever are promptly checked by such mode of treatment, and that repair is more rapidly established when it is resorted to.*

NEWBERRYPORT, MASS.

Correspondence.

BERLIN LETTER.

(From our Special Correspondent.)

Immunization—New Lanoline Preparations—18th Berlin Congress—Retirement of Bunsen—Berlin Oculists.

BERLIN, April 26, 1889.

Of all the subjects within the wide range of medical science, there is probably none of greater vital bearing than the problem of immunization.

ROUX and CHAMBERLAND have made intraperitoneal injections with the ptomaines of malignant œdema and anthrax on various animals, with-out using the bacteria themselves, and as a result the animals experimented upon showed perfect immunity against inoculation with the living bacilli of the disorder. This discovery is undoubtedly of great practical value, and instead of dealing with micro-organisms, we can now, in our experiments with immunization, work with chemical agents (the ptomaines), the action of which is far more easily gauged than that of living germs.

* Medical Record, Vol. 34, page 31.

As long as ten years ago, BUCHNER pointed out a reaction of the organism, by which he could render his own person temporarily immune. At present he could demonstrate the truth of that assumption. METSCHNIKOFF believes in the eating up of living pathogenic bacteria by cellular elements, and he teaches that leucocytary and other cellular elements migrate to inflamed tissues exposed to infection, in order to there act as phagocytes. It is, probable besides, that certain chemical reactions, and concentration of the tissue-fluid, are also required for the degeneration and death of the germs. He refers here to fluid agents, generated by fever, which, as his experiments have shown, have an antibacillary action. These considerations, however, serve only for the explanation of temporary immunity, permanent immunity requiring the presence of still other factors. VOIT, in his recent experiments, has shown that the living blood-plasma possesses evident antibacterial properties. Living normal blood is not only an unsuitable, but, it appears, also a deleterious soil, for micro-organisms. If, however, certain changes have taken place in the blood, it becomes a highly suitable medium for germ-development, and invites the implication of the entire organism. The period of incubation, consequently, marks a stage, in which the blood still possesses anti-bacterial properties. According to this view, immunity represents the faculty of the organism to permanently keep back the period of incubation. VOIT, in conclusion, gives an answer to the question, what prevents the organism from becoming diseased? He believes that the bacillary poison is unable to affect an organism which has become accustomed to it. This view harmonizes with the experimental results of ROUX and CHAMBERLAND, and represents the well-known principles of preventive inoculation.

Of the numerous drugs and chemicals which within the last five years have been recommended, few have been so lucky as lanolin in gaining a firm hold on the profession. The sphere of usefulness of lanolin is constantly being extended. DR. STERN, of Mannheim, has just come out with a number of new preparations viz.: *Sapolanolin*, *Lanolin Wax-Paste*, and *Fluid Lanolin*. Sapolanolin is desiccated lanolin and potash soap, prepared as a substitute for mollin. It is an advantageous base for most remedies, particularly for boric acid, ether, white precipitate, and resorcin, but cannot, however, be used with salicylic acid.

Lanolin wax-paste (unguentum adhæsivum) answers a distinct want in dermatological practice, since it remains in situ without any dressing or fixation. Most remedies can be conveniently incorporated with it.

The last of the new preparations is fluid lanolin, which can be used as an injection by a copious addition of olive oil.* The peculiar hygroscopic qualities of cholestrine fat allow of the addition of remedies in a state of solution and exercises a mild antiphlogistic influence over the irritated urethra.

The eighteenth Berlin Congress of Surgery was opened by an address from PROF. BERGMAN, who alluded to the illness of the late Emperor Frederick and to the distinguished members of the congress deceased during the year. He was followed by ESMARCH with a paper on the "Etiology and Diagnosis of Cancer," in which the author referred to the difficulty of distinguishing carcinoma from other tumors of the tongue and lips. He declared the microscope always essential to diagnosis, and alluded to the fact that not only is syphilomata frequently mistaken for carcinoma, but sarcomata of muscular tissue is frequently of specific origin. The knife, if demanded, should be resorted to as early as possible in syphilomata, since it readily assumes malignant form.

DR. HEIDENHEIM discussed briefly "Relapses after Removal of Cancer of the Breast," believing they invariably occur from "cancerous material left over at the time of operation." He recommends in the operation, removal of the fascia pectoralis and a connecting portion of the pectoral muscle; and when the malignant mass is firmly united to the latter, he would remove the muscle entire.

Something of a sensation was created by SCHINZINGER, of Freiburg, in this connection, who declared mammary cancer more obstinate and dangerous in proportion to the youth of the patient, and he would therefore propose to remove the ovaries as well as the cancer, in order to render the sufferer prematurely aged, and induce premature softening of the mammary gland!

DR. SCHMIDT, of this city, presented a patient in whom he extirpated the entire larynx for malignant disease, two and a half years since. The man is apparently in good health, and speaks readily, though without an artificial larynx. He breathes through a canula, the trachea being closed to the oral cavity.

In a discussion of the artificial inoculation of cancer, DR. HANAN of Zurich stated he had secured, repeatedly, malignant disease in rats and dogs by transplantation, and in an isolated instance in man—a doomed criminal.

DR. HORNBY, of London, before the congress, demonstrated by means of a monkey the motoric centres in the brain for various joints and extremities of the body.

Ozena was the subject of a paper by SCHUKHARD, of Stettin, who found the affection proceeded from the ciliary epithelium of the nasal mucous membrane; this gradually undergoes a

* In winter ol. amygd. should be substituted for ol. oliv.

form of decomposition, and is ultimately converted into simple pavement epithelium.

In a discussion regarding obscure maladies of supposed reflex origin, ESMARCH remarked:

> "Was man nicht ecklären kann,
> Das sieht man als neurosa an."
> (Anything we can't explain,
> We refer to the nerve domain.)

This *bon mot* recalls the witty remarks of FRERICH'S, when compelled to prescribe for some malady in which the diagnosis was obscure, in which case he invariably ordered sodium bicarbonate:

> "Wenn man nich weiss no, nie und warum,
> Verschreibt man natron bicarbonicarum."

which may be roughly translated as:

> If we don't know the how, and when, and why,
> We had best prescribe a carbon alkali.

DR. BRAMANN exhibited three boys, brothers, suffering from symmetrical gangrene which manifested itself in the fingers and toes of all. Although the relatives of the children were all healthy, Dr. B. held to hereditary transmission, remarking he had encountered several like cases at the period of the Franco-German war.

DR. RYDIZIER, of Cracow, presented two patients suffering with rhino-scleroma, an affection apparently indigenous to certain districts of Poland, and supposed to be produced by a specific bacillus; it consists chiefly of suppuration of the Schniderian membrane, extending posteriorly to the palate.

The discovery of a bacillus supposed to be that of tetanus, was announced to the Congress by DR. RITASATI, of Tokia, Japan, which he had obtained by culture in the rat. It resembles a bristle and is endowed with great power of resistance to heat and chemical agents, but perishes in steam vapor of high temperature; but it will live for hours in a five per cent. solution of carbolic acid.

Prof. BUNSEN, of Heidelberg, has retired from public life and as a teacher of chemistry, a position he has held for 55 years. At the age of nineteen he won his first scientific prize, and at twenty he was made a doctor of chemistry. His name became particularly famous through spectroscopic analysis which he discovered in conjunction with KIRCHHOFF. This established a new science, aztrophysics, and led to the determination of two new metals. Besides are to be mentioned his photometer, and his geological studies on the minerals of Iceland and on the Geysers.

The following is circulating in Berlin papers: A rich gentleman in Brussels asked a Berlin oculist by telegraph, what he would charge for a visit to Brussels. The answer was 3,000 francs ($600). The latter went and performed what turned out to be a trifling operation. The wife of the patient handed the doctor 3,000 francs, which were, however, indignantly rejected. The 3,000 francs, he declared, were for the expenses of the visit, but the fee for the operation was 15,000 francs ($3,000). The extortioner was paid under protest.

PERSONAL NOMENCLATURE OF DISEASE.

Editor MEDICAL AGE.

Dear Sir:—I am the "voice of one crying in the wilderness," and, perhaps, what I thus cry may kindle sympathy in the hearts of many of my afflicted brethren. I may, like John the Baptist, live miserably, and die with my hopes unfulfilled; but I must proclaim the "good time coming," to wit., the time when every aspirant for the highest seat in the medical synagogue will cease to affix, or cause to be affixed, to some acknowledged symptom, or group of symptoms, or to some vagrant item of knowledge, his family name. We know that much continually attaches to the "Smiths," yet I submit that the rank and file of the medical profession ought to rise up and bless the Smiths, for no member of all that race has as yet affixed his name to anything which comes within our practice (unless we except his unfortunate offspring). We have no "Smith's disease," or "Smith's corpuscles." But the rest of mankind are different, there undoubtedly exists an instinctive and ineradicable strain in the human constitution which leads to assiduous and ingenious attempts to fasten the name of the individual in some prominent, and if possible permanent, manner before the eyes of his own and succeeding generations. Even the great and glorious GEORGE WASHINGTON risked his truly valuable life in the successful attempt to carve his initials upon an inaccessible, but prominent, part of the precipice under the Natural Bridge. I can imagine the father of his country as, having regained in safety the bed of the little stream, he surveyed the newly carved

G. W.

With what inward satisfaction he cogitated! "Succeeding travelers will look upon these initials, which will recall to them that I was here. *Now*, I will not be forgotten."

Many attempts have been made to formulate that which most clearly differentiates man from the lower animals. Man has been defined as the "animal which talks," or the "animal which uses tools," etc., but all of these are inexact. I say he is the "animal which makes his mark." All other animals try to cover up their tracks, and when they are about to die, seek some secluded spot. I am obliged, indeed, to note a seeming exception in the case

of the Peacock and Turkey Gobbler, who exhibit an immodesty unusual among the lower animals. But, with this possible exception, I believe I have hit upon the distinguishing peculiarity of the human animal. In no other way can we account for GEORGE WASHINGTON doing that. Being human, he had to do it.

Pretty much the entire face of nature which comes within the reach of any human arm, to say nothing of all places of public resort, give evidence of this inborn, irresistible tendency. It is as unconscious and imperative as the instinct to propagate the species. Professionally we have developed this faculty until our medical nomenclature resembles a graveyard thickly set with tombstones. It is, indeed, true that, like epitaphs in general, the inscriptions carry either erroneous information or none at all. And, like old tombstones, the names which have survived and come down to us convey only indistinct honor to those who sought to perpetuate their memory by thus burdening seccessive generations. We wander some pleasant Sunday morning through the old graveyard, and idly note the name and the date, so long ago! We continue to prescribe Dover's powder and, unless we have a taste for antiquarian research, do not even wonder who DR. DOVER was.

Seriously, there is little honor in the custom, and no use. Let us begin now to discard the whole system—to begin with, let us have no more of "Bright's disease." Let MENIERE and CASEDOW, and CHARCOT, and MCCARTHY, and all, old and young, have a memory of their good deeds to carry down their good names as long as time allows, but let us stop endeavoring to achieve a fame which is adequately and delightfully summed up in "BILL STUMPS, his mark."

If the medical journals of the United States will cut out all personal nomenclature, both ancient and modern, it will not, indeed, relieve us who have already filled our minds at much expense with a set of meaningless titles, but a new generation will have more time in which to acquire the essentials of medical education.

Let the MEDICAL AGE help to usher in the age of reasonable terminology.

DAVID INGLIS.

RHAMNUS PURSHIANA AND RHAMNUS CALIFORNICA—ARE BOTH EQUALLY EFFICIENT THERAPEUTICALLY?

MR. F. A. BECKETT, in an article on Cascara Sagrada, in Pharmaceutical Era, page 132, says in regard to Rhamnus Purshiana and Rhamnus Californica: "They are gathered indiscriminately; are almost identical in appearance, and each is equally good." The first portions of this testimony, coming from MR. BECKETT, who lives upon the ground, and is evidently familiar with the methods of collection of these drugs, are exceedingly valuable. I have frequently pointed out the facts here stated by MR. BECKETT, as the result of my own observation and study of the drugs as they reach the market. We have here the testimony of one who is familiar with the fact from his observations at the source of supply. These two shrubs grow together, the R. Californica being in most localities much more abundant than the R. Purshiana, so that collections made in such localities would require much more labor if made to consist wholly of the genuine bark, than where they are collected "indiscriminately," even if the collector possessed in all cases the knowledge and skill necessary to properly distinguish them. The result is, therefore, as I have frequently pointed out, that of the entire bulk of Cascara Sagrada which reaches the market through the ordinary channels of collection and trade, probably the greater part consists of spurious bark.

The second portion of MR. BECKETT'S statement, namely, that "both are equally good," *is absolutely without foundation in any published information.* If MR. BECKETT is a physician, and possesses facts in support of this remarkable statement, he should at once bring them prominently to the notice of the medical profession, as there are few ways in which medical practice could derive more benefit at the present time, than by increasing and defining our knowledge of the comparative therapeutics action of Cascara Sagrada and its relatives. Until such action shall be taken, and in the absence of any information in support of the statement, we must refuse to give it credence. As a matter of fact, we have an overwhelming amount of evidence in refutation of the statement. No fact is more notorious than that different preparations of Cascara Sagrada represent as wide a deviation in their therapeutic effects as is to be found in the preparations of any important drug now in use. So great is this variation, that it at one time reduced some of our most prominent clinicians to the suspicion that some of the more efficacious preparations were enriched by the addition of aloes or other substances. This suspicion was found upon investigation to be entirely erroneous, and it was shown conclusively that the only cause of superiority in the one preparation, consisted in the fact that the house preparing it, secured its crude drug supplies through its own agents, who were thoroughly posted as to the differences between the varieties, and were instructed to secure only the genuine species however great the expense involved might be. As a matter of fact, such supplies often cost the house in question more than five times as much as it would have cost them to purchase supplies in the open market. Viewing these facts in connection with the ex-

plicit statement made by MR. BECKETT, that these two species are collected "indiscriminately," the chain of evidence is complete, and it is clear that the greater or less degree of inertness of the majority of the preparations of Cascara Sagrada offered to physicians, is caused by the admixture in the drug of Rhamnus Calfornica.

It is discouragingly difficult to induce physicians to interest themselves in a general way in the subject of genuineness and purity in their crude drug supply. They are disposed to leave these matters in the hands of pharmacists, and the result is, that it is not always properly dealt with. They are perfectly willing to grant, theoretically, that manufacturing houses should be encouraged to make the collection of their drugs as important part of their business as one of their manufacturing processes, but they are very slow to put the theory into operation in their own practice. Here, however, is a case where their doing, or failing to do so, means immediate credit or discredit to themselves among their patients. There is no medicinal operation whose results produce so strong an impression upon the patients as the action of a laxative, and they are exceedingly apt to judge harshly of their physician if he fails in the production of so simple an effect; and this is precisely what he will do if he administer a defective preparation of Cascara Sagrada. The case of this drug merely furnishes an unusually striking illustration of what is equally true in the case of all other drugs—that careful collection is the first requisite toward a perfect preparation.

H. H. RUSBY, M. D.

THE TREATMENT OF PLEURITIS.

Editor MEDICAL AGE,

Dear Sir:—In the AGE of May 10th, PROF. FORLANINI, has an article on compressed air in the cure of pleuritis. I have seen five plans tried in numberless cases, three of which are usually speedily curative, and without danger of relapse. These are: bleeding at arm with leeches over the seat of pain; counter-irritation by means of blisters, mustard poultices, the use of diaphoretics, and opiates. Compressed air seems a more indirect method of treatment than these.

[In confirmation of his views, DR. DUNSTON cites three cases from his experience in which the methods he advocates were successful.—ED.]

W. DUNSTON, M. D.

HANCOCK, MICH.

The Medical Age.

A SEMI-MONTHLY REVIEW OF MEDICINE.

B W. PALMER, A. M., M. D., Editor.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

DETROIT, MICH., MAY 25, 1889

Editorial.

TREATMENT OF TAPE WORM.

In another column will be found an article by DR. DUCHESNE, read before the Society of Practical Medicine, Paris, on the treatment of tænia.

It will be seen that among all the remedies current for this common affection, the writer gives the preference to the oil of male fern combined with calomel. Seven drops of the oil of male fern are enclosed in a capsule along with one grain of calomel; sixteen such capsules are prepared; the patient is made to take two every ten minutes. To avoid colic—fifteen minutes before the administration of the capsules, a dose of antipyrin (seven to ten grains) is administered.

DR. DUCHESNE says that since he has been in the habit of prescribing these capsules he has never failed to cure his patient by removing the worm; he however admits that he does not always succeed in finding the head, nor does he think this necessary, though insisted upon by other authorities.

It is a little singular that at the meeting aforesaid there was no one to assert the superiority of treatment by pelletiérin, the active principle of pomegranate, so much commended by BERENGER-FERRAND the author of an excellent treatise on tape worms, and by DUJARDIN-BEAUMETZ.*

The paper of DUCHESNE elicited much comment. Strong objection was taken to the position held by the essayist that the eviction of any quantity of segments of the worm, *without the head* is to be regarded as successful treatment. If this were the case, almost any purgative might be regarded as specific, for all procure the expulsion of fragments of the worm,

*(A summary of the mode of treatment by pelletierin, as counselled by Berenger-Ferrand and Dujardin-Beaumetz, has already appeared in a recent number of the MEDICAL AGE (See vol. vii, No. 7, page 167), and need not here be reproduced: It is sufficient to recall the principal points of this treatment:—two doses in the morning on an empty stomach, the one at 6 o'clock the other at 7 A. M. of five grains of the sulphate of pelletierin along with eight grains of tannin; in half an hour a full purgative dose of compound tincture of jalap or castor oil.

of greater or less length. One speaker (WEBER) regarded most tænifuges as such by the *tannin* which they contain: the worm is subjected to the mechanical influence of the astringent, is puckered, curled on itself, lets go its hold of the intestine by its suckers, and is then in a fit condition to be expelled by the purgative. It is in this way, according to this speaker, that areca nuts act, which are rich in tannin. Pomegranate bark also contains tannin, and its alkaloids have been found to be more efficacious when given along with tannin.

Another speaker (DUJARDIN-BEAUMETZ) did not accept this view of the action of tannin in the expulsion of the tænia; tannin is neither tænicide nor tænifuge. According to this authority, there are two sorts of medicaments which concur in the eviction of tape-worms: tænicides, which stupefy the worm, cause it to curl upon itself and let go its hold, and tænifuges, which act upon the parasite in its inert state and evacuate it. There is only the anthelmintic, kamala, which possesses this double property; hence it is that to other tænicides we are obliged to add a tænifuge, *i. e.* a purgative. Pelletierin, iso-pelletierin, and other derivatives of the *Panica granatum*, are powerful *curarisants* (paralyzers), capable of killing young hares and even young infants; they stupefy the worm, but neither kill it nor expel it. The time during which the stupefying action of all these products is exercised on the cestoids being very brief, the tænifuge purgative ought to be administered within a very short time after giving the anthelmintic. A great part of the success depends on knowing the precise time when to give the purgative. In the experience of the speaker, the most favorable time for the administration of the purgative was twenty minutes after the ingestion of the tænicide. The purgative which had given him the best results was the compound tincture of jalap.

As for the part which tannin plays when given along with the mixed pelletierines, it renders the latter insoluble, *i. e.* not absorbable by the stomach, and so ensures the passage of the anthelmintic into the intestines, and its direct contact with the worm. The action of pelletierin is one of contact only, for when introduced hypodermically, it has no effect.

Another speaker (TOLEDAND) preferred the oil of male fern to every other tænicide; out of twenty-five cases, he had never had a failure; he always gave the purgative two hours after the first medicament.

Another point brought out in the discussion was that the state of vacuity or repletion of the intestines has a good deal to do with success in the expulsion of the tænia. If the cestoid is embedded in a mass of fæcal matters, there may be little chance of the tænicide coming in direct contact with it. Hence the patient should be prepared for the operation of the anthelmintic by a starvation diet, or by simple milk diet, and the frequent exhibition of lavements.

It is not yet known whether the presence of different kinds of tænia demands different remedies, some being specially indicated for the bothriocephalus, others for the tænia solium, etc., and it is a matter of experience that in cases where an anthelmintic has failed, another, for unknown reasons, has succeeded.

THE GERMICIDE TREATMENT OF GONORRHŒA.

Since the discovery of the gonococcus of NEISSER and the microbiotic nature of gonorrhœa, great hopes have been entertained that by suitable local antiseptic and germicide treatment gonorrhœa might either be nipped in the bud, or at least greatly shortened in its duration. This result, DR. ANDRE MARTIN, in the Journal de Médicine, reports as being in some measure attained by the early and persevering use, three times a day, of a urethral injection of bichloride of mercury, one part to 20,000; by the use of these injections, which constitute almost the only treatment pursued, DR. MARTIN claims that the duration of the malady is abbreviated by about one week. BOURGEOIS, CONSTANTIN PAUL, CHAMKRON and ZEISSOL, have all reported equally favorable results from injections of solutions of quinine, permanganate of potash, bichloride of mercury, and they affirm the great superiority of this, which they style the modern treatment, over the old or "classic" treatment which respects the period called inflammation, and addresses itself only to the stationary and declining periods of the disease;—antiphlogistics, alkalies, and astringent alkalies, and sedatives coming first, balsamic and astringent injections somewhat late in the course of the blenorrhagia. The foreign authorities above mentioned expect even more favorable results in the future from the antiseptic method as applied to gonorrhœa. These experiences and these expectations have not, however, been realized by other physicians who are experts in the treatment of venereal diseases. Thus, we find DR. CHARLES MAURIAC affirming in a recent lecture in the *Hôpital du Midi* that "the antiseptic practice at once suggested by the microbic theory of gonorrhœa has till now produced only delusive results." An important article has just appeared in the Journal of Cutaneous and Venereal Diseases (April 1889) which is the joint production of DRS. JOHN B. BRYSON and EDWIN C. BURNETT of St. Louis. These writers are convinced of the specificity of gonorrhœa. They affirm that the discovery of NEISSER of the gonococcus, and the experiments of BAMM with cultures of this germ

* * * * establish this claim of specificity on a reasonably fair basis." "The whole clinical course of gonorrhœa is different from that of simple inflammation in the severity of its symptoms and in the complications which supervene—such as chordee, epididymitis, parenchymatous prostatitis, gonorrhœal rheumatism, and in the almost invariable sequel, a chronic stage which resists all treatment, both general and local, with the greatest obstinacy." These writers moreover declare as the result of their clinical observations, that the specific gonococcus, which ordinarily begins its depredations at or near the meatus and spreads therefrom along the urethra, is found in greater or less abundance in all cases of gonorrhœa acute or chronic, constituting an important diagnostic element. It might then be supposed that the cure of gonorrhœa would be comparatively easy; that the treatment would be simplified to the applicatiod of certain antiseptic principles and the destruction *in situ* of the specific germ. Unfortunately the practical fulfillment of this leading indication is very difficult.

The gonococcus burrows beneath the epithelium, and is unaffected by such superficially acting caustics as it would be safe to use, and by solutions of corrosive sublimate, permanganate of potash, etc., which are destructive of all germs with which they come in contact. At some point or other of the urethral tract, in the sub-mucous tissue, in a mucous follicle, in a small abscess cavity under the mucous membrane, the gonococcus finds a lodgment and a breeding-place where it is safe from all the topically applied germicides. The clinical observations of Drs. Bryson and Burnett embrace 1384 cases seen by them in dispensary practice. In their experience, the abortive treatment has failed utterly, and the germicide treatment, however effectually carried out, has never shortened the acute attack by one day, or cured cases characterized by obstinacy and chronicity. The sublimate injections not only fail to answer the indications for which they are given, but "they form insoluble albuminates with the superficial cells, and so excite antagonism of the elements overlaying the untouched and unimpaired morbific germs."

These writers sensibly argue that the success of the antiseptic treatment depends entirely upon the perfect removal of the germs. "As these rapidly penetrate the upper layer of the epithelium, down upon and into the papillary layer, this is a difficult task. And even if the upper layer is thoroughly removed, and the parts flooded with the most powerful germicide, some of the germs will escape contact with the medicament. They remain just as potent for harm as ever, causing the disease to spread backward from the navicular fossa, and out of reach. * * * The rapid penetration of the micrococci into the sub-mucosa, constitutes the chief obstacle to success." Drs. Bryson and Burnett are, in fact, convinced that the topical, germicide treatment of gonorrhœa, both in the first and in the secondary stationary periods of the disease, is sure to result in failure; nay, more, their experience teaches them "that in the first and second stages, all local applications are harmful." They would reserve all such applications to the last, or declining, period of the disease.

Their observations, moreover, have led them to the concluison, that all topical applications which favorably affect the course of the disease, "do so by reason of their astringent influence upon the tissues in which the germs lie embedded, condensing the medium, and thereby retarding their reproductive activity. * * It is only in the third stage, when the soil is impoverished, and the germs reduced by partial starvation to a low stage of reproductive activity, that local applications seem to be of service. * * * It is at this stage that we find the mild vegetable and mineral astringents to be of the greatest service."

Of remedies given by the mouth, those which appear most favorably to affect the disease by saturating the blood and urine with their digested products—it is not known whether they have a germicide action, or not—are, the balsam of copaiba, and the oil of yellow sandal wood. These medicines, when well borne by the stomach, may advantageously be given during the first and second stages of the disease.

THE ARREST OF PHTHISIS.

In an address to the Islington Medical Society (London) Dr. Sansom discussed the arrest of phthisis and the mode of occurrence, and was disposed to believe the bacillus of tubercle had a tendency to die out like other germs if surrounded by unfavorable conditions. From an analysis of twenty cases, he was satisfied of the absolute arrest of the disease, and found that in such case the condition was due to climatic changes, though not necessarily in any give place or climate, but out of the air of crowds and towns. More importance was attached to this element in treatment than to merely medicinal measures. Of these the best is cod-liver oil, administered by the rectum when not acceptable to the stomach; and inunction of carbolic acid one part to four parts of olive oil, over the apices, was also recommended. Especially notable was the fact that ferruginous preparations had not been employed in any of the successful cases.

Also attention was called to the fact that the Faroe islanders, who live in very open moist air, and subsist largely on fish and wind-dried

mutton, while subject to bronchitis and rheumatism, are exempt from phthisis.*

It is to be hoped DR. SANSOM is a trifle too absolute in thinking change of air and climate essential to the occurrence of spontaneous arrest of phthisis, since it would be a bad outlook for a large class of city patients with whom escape from town air and influence, is impracticable, if not positvely impossible. The facts are, however, tubercle is much more frequent than is generally surmised, as is also the tendency to spontaneous eradication and cure. DR. HEBERDEN long since recognized this in his "Commentaries," and cites cases in print.

Our best knowledge of the arrest of phthisis, however, is based on observations in the pathological theatres of the great hospitals of medical centres; and it was the hospitals of Edinburgh, London, Paris, and Vienna that led BENNETT, WILLIAMS, ROGEE, BRUDET, and others to affirm belief in such process. The former remarks:

The careful dissections of morbid anatomists have recently shown that this arrestment, instead of being a rare or occasional occurrence, really happens with extreme frequency. In 1845 I made a series of observations with reference to the cretaceous masses and puckerings so frequently observed at the apices of the lungs in persons advanced in life. The conclusions arrived at was, that the spontaneous arrest of tubercle in its early stage, occurred in the proportion of from one-third to one-half of all the individuals who die after the age of forty.

The observations of M. M. ROGKE and BOUDET made at the Salpetriere and Bicêtre Hospitals amongst individuals over the age of seventy, showed the proportion in such persons to be, respectively, one-half and four-fifths. The observations of HEITTER, of Vienna, are to the same effect, and show a large percentage of spontaneous recoveries.

DRINKING WATER AND FILTERS.

Water has long been regarded as a symbol for purity. Nevertheless, in spite of the transparent and sparkling, grateful and refreshing characters of the element, it has in ages past, and still is, subtilely carrying the seeds of disease to myriads of the human race.

Absolutely pure water does not exist in nature. Even the vapor of the atmosphere which surrounds our globe, is more or less charged with impurities, and rich in minute organic life. The germs of the latter, owing to their great volatility are carried by winds hither and thither to high altitudes and long distances, and again precipitated in drops or crystals according to the surrounding temperature. The pink snow of the Oural derives its hue from microscopical vegetable spores; a fall of "black snow" that occurred in Michigan a few years since owed its unusual color to like cause; and the so-called "mountain fever" has been traced to vegetable spores in melting snow, carried into sources of water supply.

The earth itself is a common source of pollution. Water is gathered in springs, streams, ponds and lakes, over and through soils rich in decaying vegetable and animal matters; the bank of the sparkling brook, or its source, is too often a bed of sphagnum giving life and sustenance to innumerable minute organisms —microbes. Water derived from a wooded or grass covered area protected from surface drainage and not holding an excess of mineral salts, is the purest that can be obtained, for the reason that the soil acts as a filter, and the supply of fluid not demanded for vegetable growth and sustenance, percolates to the deeper stratas to burst forth anew as bubbling springs that distribute, only to give back to earth again through absorption and evaporation. Its purity and healthfulness depend entirely upon the soil upon which it is collected, and the preponderance therein of microbes that are noxious or innocuous—the latter being of the scavenger class and tending to secure the very conditions to which the former class are inimical. The purest water is obtained only in uninhabited, or at most sparsely settled regions. Surface drainage from uncultivated ground, especially of marshy character, contains a large amount of vegetable matter, from the decomposition of which, under certain conditions of soil and temperature, is developed the malarial poison. It is positively demonstrated, however, that this poison is eliminated by filtration through the soil, and no malarial disease can be traced to a well or spring untainted by a direct inflow from the surface.

Nature's process may be successfully imitated, and artificial filtration properly conducted can afford protection against most germs. But whether the filters generally supplied fulfil this indication has long been a mooted question. Recently Dr. CHAS. G. CURRIER took the matter in hand, and in an exhaustive article in the Medical News, based upon personal experiments, he proves that the majority of implements denominated filters are nothing of the kind, and oftentimes dangerously deceptive. Further he adds that a bad water filtered, is less desirable than a good unfiltered water in its natural state. He closes his most admirable and interesting paper with the following summary:

1. Boiling water kills harmful bacteria in thirty minutes. No chemical agents can sterilize water if employed in safe quantities.

2. Filters, however satisfactory strainers, commonly are inefficient in removing bacteria,

* An interesting account of the Faroe Islanders is to be found in the British and Foreign Medico-Chirurgical Review, vols. vii and ix. Ed.

but on the contrary may permit more rapid multiplication of the micro-organisms in the filtering material itself. The finer the substance through which the water passes, and the lower the pressure, the more perfectly the filter holds back bacteria.

3. Porous rebaked porcelain, is the best of all substances for domestic filters, but should be occasionally sterilized by steaming or other means. If thick and strong enough to allow the use of a large surface, and the substance remains perfect, this may yield a fair flow of perfectly pure water, free from noxious organisms.

4. In general it is best that the filtering for a community be done carefully on a large scale, through sand beds upon which a fine layer of organic and inorganic matter is expressly produced by sedimentation, because of the valuable action of the latter in holding back the great majority of bacteria.

5. When filtration is employed because of real danger of infection, the filtered water should be boiled, as the entire absence of sediment and cloudiness does not ensure that the bacteria of disease have been eliminated.

To this we would add that the habitual drinking of boiled water would save untold numbers from illness, and perhaps death, since the clearest, coolest, and most delightful of springs or wells may contain the most fatal of germs.

LITERARY MEDICAL MEN.

Few medical men, as a rule, are what may be termed literary in a scholastic sense. Medical authors abound, but during the present decade these are mostly young men seeking for fame by the medium of compends hashed up from older authors, or old men whose reputation as teachers is well established. In either case, the opportunity to display literary attainments is not large, since the first mentioned are hampered by the nature of their work, while the latter are obliged to seek opportunity in the midst of busy every-day practice. As a rule, our medical works are not scholarly, and some of our best professional authors are sadly lacking in this respect. Three gentlemen somewhat noted in our profession, have entered the field of general literature in the United States, viz., Wm. A. Hammond, S. Wier Mitchell, and Allan McLane Hamilton, but in spite of manifest merit, neither have attained any very high standard, and their reputation in the field of fiction is largely due to that before obtained by medical authorship. Oliver Wendell Holmes is a rare exception among those who are both medical and lay authors. Aside from his world-wide reputation as a poet, which has relegated his medical writings to the background, he is the author of many professional brochures that rank among the first productions of the age. To-day his prize essay on "Diseases of the Heart" is extensively quoted and referred to, but few are aware that the Dr. Holmes is also the "Autocrat," the "Professor," and the author of *Elsie Venner* and *The Guardian Angel.*

In Great Britain, several professional gentlemen have assayed the rôle of lay authors, and many of our best works of fiction are from medical men. Goldsmith was an unfortunate physician without practice. Smollett had a hard struggle for existence, which is outlined in the *Adventures of Roderick Random.* Darwin senior, Akenside, Garth, Mason Good, Walcott, Armstrong, Sir Richard Blackmore, and Hallen, were all poets of more than ordinary ability, and even indulged on occasion in prose. Even John Keats, though he never graduated in medicine, may be claimed to the fraternity, since he was intended for the profession, and studied under Mr. Hammond, surgeon in Church Lane, Edmonton, and subsequently entered at St. Thomas Hospital. He always intended to finish his studies, but was cursed with ill health, and death early stepped in to claim a victim. His demise is said to have been accelerated by a severe criticism animated by political enmity, which appeared in the Quarterly Review. To this circumstance Byron alluded in the following:

> "Who killed John Keats?
> I, says the 'Quarterly,'
> So savage and tartly;
> 'Twas one of my feats.
>
> "Who shot the arrow?
> The poet Milman
> (So ready to kill man),
> Or Southey, or Barrow."

Again, in reference to the cause, he says:

> "Oh, that the soul, that very fiery particle,
> Should let itself be snuffed out by an article!"

We are reminded by a leading article in the British Medical Journal, that it is only of late that medical men, as a class, have obtained the high social position and estimation to which their scientific attainments entitle them; that the profession have ever been a target for the authors of fiction, from the time of Chaucer down to the present. Even Smollett did not hesitate to pillory his own profession, and not altogether without cause, it would seem; and the *Slop* of Laurence Sterne is a medical mountebank. Few will forget Smollett's "Feast after the Manner of the Ancients," and the pedantic, ignorant, ill-mannered physician who was the author thereof; but this, manifestly, was the outcome of personal spite, and directed against Dr. Mark Akenside, the poet, and the character is said to have been not ill drawn. Charles Reade never permitted an opportunity to pass for giving a hit at regu-

lar medicine, being of homeopathic proclivities and quackish tendencies; and his chromo-thermal medical man in *He Knew He was Right* is well known to be an advertisement for a noted London empiric.

Probably not one in fifty of the readers of CHAS. LEVER are aware that this author's success and charming mannners were due to his thorough medical education, which trained him to habits of close observation: and fewer know that his characters, one and all, are drawn from real life. Who will forget LORREQUER'S essay as a consultant physician in a case of "stay-at-home-with-us tumor;" the astute DR. FINUCANE'S threatened attack of hydrophobia in the Naas mail coach, and the means by which he detected one in liquor who was "not a gentleman;" the jolly MAURICE QUILL'S adventure with the "Iron Duke" that caused the medical staff to be shorn of their feathers (a fact); or the surgeon of the 14th whom MICKEY FREE stigmatized as an ignoramous because he gave him "a couple of powders he called a-maytics, devil a one of which would stay on his stomach." LEVER was at one time a dispensary physician, and before that, one of the little corps that volunteered their services during the cholera ravages in the South of Ireland; and his first essay as an author, and no mean one by the way, was in a monograph upon this epidemic. It was while Physician to the British Embassy at Brussells that he attempted his first work of fiction, *Charles O'Malley*, the accurately drawn portraitures in which would have involved him in half a dozen duels but for his tact and good humor that never failed to turn a foe into a steadfast friend. Even the son of old "MONSOON," who came to Brussells expressly to ask LEVER to a "walk before breakfast," was disarmed by the author's wit and pleasantry, and accepted the amendment of a "*breakfast* without the *walk*."

SIR WALTER SCOTT, in his *Surgeon's Daughter*, describes one in whom the profession may feel just pride: "GIDEON GRAY, surgeon in the village of Middlemas, situated in one of the midland counties, led the rough, active and ill-rewarded life of a country doctor. His reputation was such in the medical world that he had been more than once, as opportunities occurred, advised to exchange Middlemas and its meagre circle of practice for some of the larger towns, even for Edinburgh itself. This advice he had always declined. He had few wants, and these were amply supplied by a professional income of nearly two hundred pounds a year, for which, upon an average he travelled five thousand miles on horseback in the course of twelve months." This is true of more than one "Scottis' physician" at the present day, many of whom are very learned men. DR. JOHN BROWN relates a visit he paid to DR. ADAM, a country practitioner, and the translator of Paulus Ægineta and Hippocrates, whom he found at breakfast was amusing himself in pencilling a translation of an ode of Horace into Greek verse. Such erudition displayed by an American physician with half the professional work of this village doctor would command our admiration: yet it is by no means so rare perhaps, as generally imagined.

Indeed, there is no reason why medical men should not shine in *belles lettres*, since their opportunities for studying the various phases and foibles of society and existence are unsurpassed: and the great drawback has been hitherto, chiefly (in America at least), the low standard of general education required for admittance into the ranks of the profession, and the prostituting thereof to mere money-getting, thus dragging to the level of a trade. But even this is slowly being corrected, and in another decade we may expect the physician to take his proper place in literature other than the merely scientific, untrammelled by the associations and superstitions that have so long clung about the title; and we may believe also such step will tend to better education through the promulgation of more correct principles of life, health, and morality.

SUCCESS IN DIAGNOSIS.

Excluding pecuniary considerations, in which the charlatan often times excels, successful diagnosis depends upon three factors: The recognition of the morbid evidences; the interpretation of these evidences; and the therapeutico-physiological application of remedies. The latter two are dependent upon the first, without which they are useless; hence the necessity for precision in diagnosis.

To this end the cultivation of the faculty of observation is indispensable; it is essential that all the senses be brought into combined and consentaneous operation. All men are not equal; and even when deriving their knowledge from the same source, no two will be found alike. Diagnosis will be determined in widely different ways, but these, for practical purposes, may be narrowed down to two: 1. In which, before allowing the mind to dwell prominently upon the most patent and available symptom, a rapid inventory is taken of the entire organism and its development, both within and without, and any abnormality silently noted. 2. Taking the most prominent symptom as a point of departure, and reasoning backwards by an elaborate process of inferences.

It is astonishing oftentimes how helpful the first method proves, and how directly it frequently leads to an obvious diagnosis, which the second, or more common method, reaches only after considerable delay. In example:

A patient applies for relief from asthma. By the second method the chest is examined with the view of either corroborating the invalid's statement, or discovering some pulmonary or cardiac lesion that will account for the prominent symptoms. By the other method, the trained habit of observation reveals perhaps slight pallor or puffiness of the face, indicative of renal dyscrasia, and a question or two leads to examination of renal secretion, and the discovery is made that Bright's disease instead of asthma is the cause of dyspnœa.

It has been remarked of an eastern medical college that the chief feature of its teachings lies in the fact, that its students are trained to infallible diagnosis: they are drilled to exclude positive evidences until the negative have been summed up and each and all are correctly analyzed. This, to a certain extent, combines the two methods mentioned, and undoubtedly possesses superior advantages when time is less an object than inculcation of knowledge and methods of observation. In other words, however available to the clinical teacher, it is not always practicable to the general practitioner who is frequently so situated that his diagnosis must be speedy; opportunity for careful and hypercritical survey is not at his disposal. Neither are his patients, as a rule, willing to submit to examination and queries that tend to a perfect understanding of the condition and relations of every organ of the economy; neuralgia to them is *neuralgia*, no matter whether dependent upon uterine or stomachic reflexes, and if the neuralgia can be relieved, the other organs may take care of themselves until such time as they manifest definite individuality. With such people, the diagnosis must be arrived at by intuition and observation, while they are permitted to regale themselves with a knowledge of the creature of their own mental formulation.

It is by instructive and intuitive methods that diagnosis is made successful, rather than by following "rules of thumb" applicable only to clinical and hospital wards. As the London Lancet observes, the deliberate and systematic "culture of capacity is the more necessary, inasmuch as there is a well-founded suspicion that much bookish study is, on the whole, hurtful rather than helpful to our natural endowment. The diligent student is in constant danger of getting more and more into the habit of seeing all things 'through the spectacles of books,' whereas, it cannot be doubted that all true progress in science has sprung, and must always spring, from the direct, patient, and intellegent observation and interrogation of Nature. Those fortunate individuals, happily numerous in our profession, who possess an instinctive faculty for detecting, almost without effort, the signs of disease, may be independent of any conscious cultivation of the perceptive powers; but that much larger class who are conscious of no special endowment, or even of decided defeat in this department, undoubtedly derive great benefit from the adoption of rules, which, practiced at first with conscious effort, tend more and more to become automatic."

No fault is more general than that of relying upon one sense alone—hearing for example, and allowing the stethescope to monopolize attention in dealing with thoracic disease. A moment's palpation of the chest may reveal signs that at once suggest a probable diagnosis, and that mere auscultation is powerless to detect; or perhaps a half dozen taps of the fingers may narrow investigation to one of two alternatives. Or, to take another example, if all senses are alert, an odor may be detected at the bedside that suggests acute rheumatism or diabetes.

It would be easy to elaborate the line of thought herein indicated, but space will not permit of such transgression. But this may be repeated, that, upon the principle of reviewing all parts of the organism in serial order, until a definite cause is found—the principle of consciously keeping all the senses alert for the detection of evidences of disease—depends, to a great extent, success in diagnosis, especially to these with whom it has not yet become so intuitive as to be virtually a second nature.

THE ASYLUM PROBLEM.

In a recent issue of the AGE in considering Judge WILLARD BARTLETT'S paper before the Society of Medical Jurisprudence and State Medicine, we had occasion to refer to the management of Insane Retreats. The recent investigation of the asylum at Pontiac, while exonerating the management, and justly so, furnishes food for further contemplation.

Here is an institution where, it is presumed, the most intelligent methods are pursued for the amelioration of the condition of the unfortunates whose mental condition is wrong. The charge is made that the death of a patient received, was due to improper handling by attendants; and the query arises, who is the proper judge in such cases of the acts of such attendants. Without any knowledge of facts; with no experience in the dangers accruing to the care of the insane; with an utter disregard for personal knowledge or right; and ignoring the trite maxim of Blackstone that is the foundation of all Anglo Saxon law, that the accused shall be deemed innocent until proven guilty; an irresponsible secular press becomes a self-constituted judge and jury, and proceed to blacken without stint a public institution and its management. The sympathy is all for the violently insane patient, who though as dangerous as any wild beast, should, if their

dictum be allowed, have been treated like a babe in swaddling clothes.

It is the fashion to waste entirely too much sympathy upon the insane, so much so that the insanity plea is made the cloak for the escape from the clutches of the law of the most fiendish murderer, except when public opinion is suddenly brought to a high pitch of morality, as in the case of GUITEAU.

The violently hopelessly insane man is in truth reduced to a level with the lowest of brute creation; he lacks the mentality that entitles him to rank as a human being. He is irresponsible and should be thus treated; and that treatment comes within the scope of the S. P. C. A. rather than of the newspaper reporters.

We venture to say if the extreme penalty of the law for murder extended to the insane, we would have fewer murders, and fewer insane.

There are few insane, too, who do not possess the brute knowledge of right and wrong sufficiently to avoid the latter when it is known that it brings its penalty. There is "method" in more than one form of "madness," and this should be recognized.

Undoubtedly also the insane do suffer from improper treatment at times, even in the best of asylums. Whose fault is this?

There are few asylums that are properly supplied with attendants, either as to numbers or as to ability. The management is restricted in funds, and consequently in the selection of servants. The average attendant knows as little about insanity or disease as he does of the cuneiform alphabets. Trained nurses of large hospital experience, of known character and standing, are not obtainable at the salaries provided; neither are salaries, as a rule, progressive with service. The writer, a few years since, in inspecting an Insane Retreat, found the male attendants, with one exception, expenitentiary turnkeys and keepers.

The insane are not convicts, but too frequently regarded as such, or worse. The number of individuals, male and female, of a class suitable for attendants is unfortunately small, and no provision made for their increase; and these few are rarely attainable owing to lack of suitable pecuniary considerations. The time must come, however, when they will be selected from among the trained and skilled nurses, as they should be, and the Insane Hospital itself made a school for their further training.

The existing and improper idea regarding insane, and the errors regarding asylum management, in the popular mind, are not a little due to the pen of CHARLES READ, who painted the black lining of a dark cloud still darker, only to be illuminated with lurid flashes of sentimentality that, however interesting in fiction, is entirely out of place in fact. It is not long since DOCTOR ADAMS lost his life at the hands of a patient at Kalamazoo Asylum, and as the Detroit Free Press justly remarks thereon:

> If insane hospitals were veritable jails, as they used to be, and demented persons were kept as caged maniacs, fatalities of this kind would not occur. The removal of all restraint upon patients except that which is absolutely necessary, has tremendously increased the care and responsibility of asylum officials and aids. Their vigilance must be unceasing, and they must be prepared to act with the utmost promptness. There is no telling at what moment an insane patient may spring at the throat of an attendant. What is to be done! The patient cannot be kept shackled in order that a possibility may be guarded against. It follows that whoever it is that is attacked must, not only to protect himself, but for the protection of the other inmates, restrain and subdue the patient.

This substantially corroborates our own opinion, viz., that the insane person is entitled to no more special consideration than the sane, in the matters that relate to or affect individual or public weal. He should be guarded and watched as far as possible, but when he becomes an element of danger to his attendant, the latter is justified in attempts to preserve himself and those under his charge from harm. Further, insanity demands special trained attendants capable of securing obedience, and capable of judging intelligently of the character and condition of the patient in his different moods.

While there is a tendency in some circles to stigmatize the Pontiac investigation as a whitewashing, there is no evidence to sustain such accusation, and even the friends of the deceased patient have expressed themselves satisfied. Indeed, it is admitted they would not have entered into the matter but for the instigation of irresponsible parties.

Book Notices.

A MANUAL OF DISEASES OF THE EAR, FOR THE USE OF Students and Practitioners of Medicine. By Albert H. Buck, M. D., Clinical Professor of Diseases of the Ear, in the College of Physicians and Surgeons, New York; Consulting Aural Surgeon, New York Eye and Ear Infirmary. 420 pages. Illustrated. Price, extra muslin, $2.50.

New York: William Wood & Company

This work previously appeared as one of Wood's Medical Library Series, under the title of Diagnosis and Treatment of Ear Diseases, and now is put forth in a new dress, apparently for the purpose of securing a new lease of life, aided by the canvassing method by which the publishers dispose of their works. The author apologizes for the new volume on the ground that he has been led to modify his views and methods of treatment, and that it is more especially designed for practitioners instead of students. To our mind the argument is a trifle specious, since a text-book merely furnishes a skeleton for the ideas and experi-

ences of the individual practitioner. Further the same errors obtain as in the previous work: the descriptions of cuts and references are often out of place, manifestly referring to the paging of the older volume. The book, however, is a good one and valuable, though less as an exponent of aural surgery and therapeutics, than as an adjunctive work of reference. It is by no means so clear as many other works devoted to the same topic.

THE RADICAL CURE OF HERNIA. By Henry O. Marcy, M. D., L. L. D. Published by Geo. S. Davis, Detroit, Michigan: pp. 250: price 25 cts. paper, 50 cts. cloth.

One of the most valuable of a truly valuable series of works—The Leisure Library—and the only comprehensive and thorough monograph devoted to this subject that has ever emanated from the press.

It is the outgrowth of special study of rupture during a period of eighteen years, based upon (first,) a series of experiments upon lower vertebrates, and (second,) corroborated by operative procedures upon man. It demonstrates beyond cavil or possibility of error, the value of aseptically applied animal sutures; that they are of primary importance in any operation for hernia; and that, moreover, when properly employed they become so incorporated with the vital structures as to be in large measure replaced by connective tissue. Further, the volume definitely settles in the affirmative the question of operative measures for the relief and cure of hernia, confessedly, hitherto the opprobrium of surgery.

The presentation of the argument is masterly, convincing, and concise; the reader is never at loss to fathom the meaning of the author. The typography is also most excellent, the illustrations, eighteen in number, finely and sharply drawn, and the volume as a whole attractive, readable, and superlatively instructive. The half dozen plates borrowed from Gray's Anatomy are vastly superior to the original.

MEDICAL AND SURGICAL MONOGRAPHS. Vol. II, No. 2. Published by Wm. Wood & Co., New York. pp. 260. Price $1.00.

The May number of this series presents: (1) a paper by SIR HENRY THOMPSON, of 43 pages upon the "Prevention of Calculous Disease and the Use of Solvent Remedies," which affords evidence of being an excerpt from "Clinical Lectures on Diseases of the Urinary Passages." (2) "Sprains, their Consequence and Treatment" by C. W. M. Moullin, an author practically unknown to Cis-Atlantic readers.

The latter, which is by far the largest part of the volume (215 pages) presents considerable interesting material, long-drawn out and badly arranged. The introduction, and chapters on Anatomy, might have been omitted altogether with profit—the author assumes his readers are unacquainted with the commonest of physiological details regarding joints, and equally rusty as to osteology and syndesmology; and the value of fifteen of the seventeen sections would be considerably enhanced by condensation into half the space.

PHYSIOLOGY OF DOMESTIC ANIMALS. By Robt. Meade Smith, A. M., M. D. Pp. 938.
Philadelphia: F. A. Davis, Publisher.

It is surprising, in view of the ceaseless activity of physiological students throughout the world that more attention has not been devoted to the study of the functions of creatures important to domestic economy. Experience has taught that comprehension of the laws of life in higher vertebrates, is best attained by familiarization and comparison with the vital operations of lower forms. For this reason, the above mentioned work will prove an invaluable aid to physiologists and students, more especially those unfamiliar with French and German, since the literature of the subject, heretofore, has been confined to these languages.

THE ETIOLOGY, DIAGNOSIS, AND THERAPY OF TUBERCULOSIS. By Prof. Dr. H. Von Ziemssen, Director of Medical Clinic at Munich. Pp. 120. Price 25 cents.
Detroit: George S. Davis, Publisher.

This is another of the handy manuals for which the profession is indebted to the enterprise and forethought of MR. DAVIS. It contains the views of one of the most eminent clinical teachers and practitioners of Europe, a gentleman already well known in this country in connection with the Cyclopœdia of Practical Medicine. Further it is the most recent published utterance upon the subject. Not the least of its merits, is the didactic and concise character of the treatise, and the absence of abstruse speculative theories, so often misleading, and so annoying in a work desired for ready practical reference.

PSYCHOLOGY AS A NATURAL SCIENCE. By C. G. Raue, M. D.; Porter & Coates, Publishers: pp. 548.

The culminating point of this volume is claimed to be the application of psychology as a natural science to the solution of occult phenomena.

The scope of the work is considerable, but by no means exhaustive, and its arguments good. One of the most interesting and instructive chapters is that devoted to sonambulism. The book is readable, and in spite of optimistic speculative tendencies, valuable.

Notes and News.

An Alleged Hæmatozoon of Relapsing Fever.—In a communication presented at a meeting of the Medical Society of the Caucasus, in Tiflis (Protokol Zasyedania of December 16, 1888), DR. N. A. SAKHAROFF described a parasite, found by him in the blood of patients suffering from relapsing fever, which resembles in many respects the hæmatozoon malariæ. The subjects of his study were six patients, received into the railway hospital in Tiflis from different parts of the Caucasus. In none of them could any history of contagion be obtained, but the diagnosis of relapsing fever was made from the presence in the blood during the stage of fever of Obermeier's spirochætæ.

The following are the conclusions which DR. SAKHAROFF formulates as a result of his investigations:

1. In every stage of relapsing fever there exists in the blood a hæmatozoon, in one or the other phase of its development.

2. Relapsing fever may be diagnosticated even in the apyretic period (most readily by the aid of stained preparations).

3. Judging from the morphological resemblance between the parasites of malaria and of relapsing fever, we may conclude that the latter, like malaria, may also arise from the soil (miasmatic), an assumption which is strengthened by the author's observations of sporadic cases of relapsing fever.

4. By the resemblance of the parasites to each other is explained also, the resemblance of the symptoms of the two diseases, in consequence of which the affections have been, and still are, occasionally mistaken, the one for the other.

5. The spirochætæ of relapsing fever ought to be excluded from the family of spirochætæ (schizomycetes) and be called pseudo-spirilla.—*N. Y. Medical Record.*

Influence of the Age of Parents upon the Vitality of their Offspring.—Recently before the Hungarian Academy of Sciences, this question was discussed by J. KOROSI, Director of the Czech Beureau of Statistics. His conclusions, based upon 24,000 cases, may be briefly summed up as follows:

Parents of the same age rarely have strong offspring; on the contrary the weaknesses of both parents are apt to be transmitted.

An aged father and youthful mother of average health and constitution, usually secure strong robust children.

The mothers most likely to transmit health and strength to their offspring, are those who conceive prior to their 35th year.

Mothers between 35 and 40 years give birth to children eight per cent. weaker than those whose maternal parents have not reached the former age. After 40, children are ten per cent. weaker,—and so on, in increasing ratio.

Fathers under twenty years of age, invariably procure offsprings with weak constitutions.

The healthiest and strongest children are the product of fathers between 25 and 40. Any excess of age above 40 is attended with a decreasing ratio of health as to offspring, except where the tendency of transmission in the male parent is overborne by the female—*i. e.*, an old father and young mother.

A Convenient Modification of the Cold Water Treatment of Fever.—There can be no doubt that the safest, if not the most effective, of all antipyretic agents, is sponging the surface of the body with water, either tepid, cool, or cold. A still more effective and quite as convenient method of applying water to the skin, is in the form of spray as described in a recent number of the Prager medicinische Wochenschrift. PREYER published an account of this method in 1884, although it had been employed somewhat earlier by FLASHAR. In 1886 HILLER applied it to the treatment of sunstroke. PLACZEK modified the procedure by spraying first with cold water (53°-60° F.), and directly after with warm (95° F.). In this way he produced a fall of two degrees in the temperature of a febrile animal. The warm spray produces a rapid dilatation of the skin capillaries, and consequent dissipation of heat.

Such measures as these, which are in close imitation of the natural processes of heat regulation, deserve the most careful study. Their soothing effect upon the nervous system, is in marked contrast to the prostration so often induced by the antipyretic drugs that have been lately introduced in such numbers.—*Med. News*, May 18, 1889.

A Simple Inhaler.—It may be useful to others to mention the following very simple mode of inhaling volatile remedies, such as pumiline, menthol, eucalyptus, etc., for the relief of some affections of the throat and lungs.

Coil a piece of paper into the shape of a cigarette, and fix it with gum. Then insert into one end a small uncompressed piece of absorbent cotton-wool, upon which a drop or two of the desired medicament has been poured. Air is now drawn through the tube by the patient, who holds the other end between his lips. This plan is, by many patients, especially by men, preferred to the use of any form of respirator, or to inhalations mingled with steam. These last, moreover, have a relaxing effect in some atonic conditions of the throat.

Of a number of remedies, including menthol, inhaled in this way by a patient suffering from pulmonary phthisis, I found that oil of pepper-

mint gave most satisfaction. A small tube of vulcanite flattened like a cigarette-holder at one end, with a raised flange or border to be held within the lips, would doubtless answer still better; but an inhaler, which when needed can be made on the spot, has advantages of its own.—ERNEST E. MADOX, M. B., in the *Practitioner*, May, '89.

Position of the Medical Schism as Homœopathists View It.—The N. Y. Medical Times, April, 1889, quoting from DR. KENNETH WILLICAN'S article in Nineteenth Century for February, 1889, presents the following summary of DR. WILLICAN'S views:

1. That the great authorities amongst the majority admit and prove the same rule *not* to be an axiomatic absurdity, but to some extent true; and that a mere difference of opinion as to the extent of its application does not destroy the possibility of an harmonious consultation.

2. That the *reductio ad absurdum* of dosage is not essential, and consequently can not be a valid reason for ostracising homœopaths *en masse;* and, being a question of degree and not of kind, is always open for adjustment.

3. That the so-called homœopathists do not in theory claim possession of the only true rule of therapeutics, and do not in practice discard other methods, rules and auxiliaries. That the exclusiveness, if exclusiveness there be, lies with those who practically admit every method and rule *except* the law of similars, which, however, they verbally accept as "true to some extent."

Wanted a Surgeon.—According to the Philadelphia Times and Register, among those prominently mentioned for the vacancy created by the death of Prof. S. W. GROSS, were CHARLES PARKS, of Chicago, HAL. C. WYMAN, of Detroit, HUNTER MAGUIRE, of Richmond, and NICHOLAS SENN, of Milwaukee.

The east has before, and with judgment confirmed by experience, looked to the west for the infusion of vitality in methods of practice and force and fire in teaching, and we may say without vanity it need never look in vain.

The profession of Detroit received a merited compliment in the mention of one of its most accomplished surgeons, who in age, education, experience, and ambition, is eminently fitted for filling acceptably the larger sphere of usefulness afforded in Philadelphia.

We learn, however, as we go to press, that the vacant chair will be filled by DR. WILLIAM KEEN, who was the final selection of the Trustees of the Jefferson Medical College.

Contagious Nature of Cancer.—In a communication to the Union Medicale DR. ARNAUDE, of Cormielles (France), maintains that cancer is the result of direct contagion propagated by water bearing in solution the dejections of cancerous patients. He supports this conclusion by statistics of a very limited district in his neighborhood in which an unprecedentedly large number of cancer cases occurred—so large that the prevalence of the disease could not be accounted for upon the hypothesis either of hereditary, climatic, or local influence. Almost all the cases affected the stomach, and he thinks that the use of water for the making of cider, the water being contaminated by cancerous dejections, is, demonstrably, the cause of the prevalence of the disease.

How to Clean Hypodermic Syringes.—Syringes, whose canals have become obstructed so that a fine wire cannot be drawn through, are cleaned by holding them for a moment over a flame; the foreign substance is thus quickly destroyed and driven off. If a wire has been rusted into the needle, it should be dipped in oil before holding over the flame. To remove the rust from the interior of the canula, it is well to pass oil through the canula, then heating it; then rinse it out with alcohol. The needle is then ready for use.—*Deutsch Med. Wochenschr.*, 1889.

DR. EUGENE SMITH has returned from Europe, and resumed practice. The doctor has removed his office and residence to 130 Lafayette avenue.

Therapeutic Brevities.

Blue Gum in Diphtheria.—Dr. J. Murray Gibbs, of New Zealand (says the Melbourne Argus), who has interested himself in disseminating information in Victora concerning the "blue gum cure" for diphtheria, has informed the Central Board of Health that he has recently been informed by Dr. A. Adams, of Inglewood, that the result of his experiments with the cure, ranging over a period of three months, inclined him to favor its use. Dr. Adams stated that in 30 cases there was a membrane over the throat of the patients, while in other instances inflammatory symptoms alone were present. He had observed eight or nine laryngeal cases, in some of which the breathing was so far affected that the face became livid. He had employed sprays of pepsin and other remedies with doubtful success, and he now proposed to give the blue-gum treatment a thorough trial. Dr. Adams is of opinion that diphtheria is a constitutional disease. He writes that his brother, who is also practicing in the colony, first became acquainted with the utility of blue-gum leaves' vapor as a specific for diphtheria when at the Glasgow Infirmary. The process, according to Dr. Adams, is very largely availed of in the north western districts of Victoria.

Flint's Tonic Formula for Bright's Disease.—In the New York Medical Journal, May 18th, Dr. Austin Flint reports five cases of Bright's Disease in adults in which the following for-

mula was the only medicinal remedy employed, and with the effect of diminishing the albumen in the urine and marked improvement in general condition.

The following is the formula finally adopted, the product of which may be put up in capsules:

Saline and Chalybeate Tonic.

℞ Sodii chloridi (C. P.), ʒ iij.
Potassii chloridi (C. P.), gr. ix.
Potassii sulph. (C. P.), gr. vj.
Potassii carb. (Squibb), gr. iij.
Sodii carb. (C. P.), gr. xxxvj.
Magnes. carb., gr. iij.
Calc. phos. præcip., ʒ ss.
Calc. carb., gr. iij.
Ferri redacti (Merck), gr. xxvij.
Ferri carb., gr. iij.

M. In capsules, No. 60.
Sig.: Two capsules three times daily after eating.

A Pure Milk Diet to Reduce Corpulency.—Dr. Geo. H. Rohe in Maryland Med. Jnl. after discussing the various methods of reducing corpulency gives the preference to exclusive milk diet.

The best method of giving the milk diet is to begin with frequent small doses. A wineglassful every two hours may, in a few days, be increased to three, four or six ounces at the same intervals, or larger doses at longer periods.

It is necessary to guard against the constipation liable to follow the milk diet. Small doses of calomel (½ grain every two hours) for six to eight doses, or a glass of some purgative water, like Friedrichshall or Hunyadi Janos, will prevent any unpleasant consequences from this tendency. The addition of phosphate of soda to the milk in 5 to 10 grain doses will also counteract the tendency to constipation, while making the milk itself more palatable. The milk may also be mixed with Seltzer's or other carbonated water to make it more agreeable to the taste.

Cactus Grandiflorus in Affections of the Heart.—In valvular affections, when the cardiac dilatation has overcome the compensating hypertrophy, Gregory has found that this medicament is superior to digitalis. In this form of cardiac affections, which Da Costa terms "functional affections of the valves," the cactus is now the only medicament which he employs. When there is a defect in cardiac innervation, when the heart beats are weak, irregular, intermittent, tumultuous, when the patient is nervous and unquiet, fearing imminent danger, the cactus is very usefnl. Gregory employs a tincture prepared from the fresh plant of which he gives from one to five drops every two, four or six hours.

He considers it a heart tonic. By repeated employment, the nutrition of the heart is improved, and the organ is permanently strengthened. He has not found it harmful to the stomach after several months' use.

Viburnum Prunifolium and Quinine in Abortion.—Dr. A. Cordes, Assistant of the Obstetric Clinic in Genoa (Annal. de Gyn., April, 1888), says:

In incipient abortion where there is still hope of preserving the fruit, Cordes gives the extract, liquid, viburn. (4 grams in a solution to be used up in 24 hours), and in many instances accomplishes the preservation of the egg, despite previous hemorrhage and incipient opening of the cervix. The quinine serves the opposite purpose, if the fruit is no more to be saved, or if only abortion remnants are present, 2 grams of quinine taken within 24 hours cause such exact uterus contractions and elimination of the egg remnants, that the author, since the application of this process, has hardly had recourse to instrumental therapy.—*Medicinisch-Chirurgische Rundschau*, April 15, 1889, pp. 315, 316.

Hoang-Nan, a Remedy for Leprosy and Cancer.—Sir Sherston Baker contributes to a contemporary a paper on Hoang-Nan, a plant indigenous to Tonkin, and which is largely used there in the treatment of leprosy, hydrophobia, and certain diseases of the skin. In doses of from 3 to 30 grains of the powder, it produces in a healthy subject, fatigue, general malaise, vertigo, tingling of the extremities, and involuntary movements of the jaw. The absence of these of these symptoms is said to indicate the presence of poison neutralizing the effects of the remedy, and the treatment is therefore continued until they make their appearance. Should the symptoms prove too violent, the antidote is an infusion of liquorice root. It is credited with the most valuable properties in the treatment of the above maladies as well as in "cancerous and ulcerous affections."—*Med, Press and Circ.*

Tablet Triturates.—According to the Med. Bulletin the late Prof. E. H. Clark, of Boston, related that an eminently successful friend of his, while dying, expressed a wish to leave behind a medical legacy acquired by his life-long experience and his best parting gift. He said, "Capsicum is the best remedy for uterine hemorrhages" The difficulty of administering it has stood in the way of its use, but the one-half grain tablets seem to meet perfectly every requisite, as I have found from experience. Hydrarg biniodide, one-sixteenth grain, is an admirable hepatic. It can be given for months with impunity. I have known one tablet to be followed by a reduction of hepatic dullness on percussion and with no catharsis.

Lippia Mexicana in Catarrhal Affections.—Lippia Mexicana is a remedy highly spoken of, especially for the treatment of diseases of a catarrhal nature affecting the respiratory tracts. It is employed to great advantage in this direction, because it possesses both demulcent and expectorant properties, and since it does not nauseate. Those who have used it extensively aver that it exerts an alterative influence on the respiratory mucous membranes, and that this quality commends it for use in certain chronic complaints often difficult to deal with.—*Southern Medical Record.*

Antipyrin in the Treatment of Urticaria.—Urticaria is a disease which often proves rebellious to treatment, and, according to Nicot, good results are to be obtained in certain cases

by the administration of antipyrin. This writer believes that two forms of urticaria are met with—the one which is intimately associated with temporary or permanent disorders of the digestive or hepatic functions, for which alkalies should be prescribed, such as arsenic and bicarbonate of soda, together with dietetic treatment and the prohibition of all stimulating food stuffs; and the other which is of nervous origin, in which highly successful results can be obtained by the use of antipyrin.

Chloral Hydrate Locally in Night-Sweats.—Nicolai (Gazette Méd.) dissolves eight grains of chloral hydrate in two tumblerfuls of a mixture of equal parts of water and alcohol. Before retiring the patient is rubbed down with a sponge soaked in this solution. When in children night-sweats occur from other causes than phthisis, the effect of this treatment is very satisfactory.

Actæa Racemosa in Diseases of Nervous Origin.—J. Craig Balfour, L. R. C. P., in London Lancet, March 9, '89, reports three cases in which he has used this remedy with gratifying success, viz., uterine neuralgia, spasmodic gastric pain, irregular pubic neuralgia.

Viburnum Prunifolium in Singultus.—Dr. Wm. C. Wood, writing to the Medical Register, speaks in high terms of viburnum prunifolium in singultus. He states that drop doses of the fluid extract never fail to relieve.—*Medical Summary.*

Medical Progress.

THE VALUE OF BINIODIDE OF MERCURY AS AN ANTISEPTIC.—The conclusion reached by Koch, in his article on disinfection and antiseptics in the Mittheilungen ans dem k. Gesundheitsamte, vol. i, 1881, p. 264, that a single application of a very dilute solution—1-1000 to 1-6000—of mercuric bichloride is sufficient to destroy the most resistant organism in a few minutes, and that a solution of 1-20,000 is sufficient, if the contact be prolonged, has given this substance a world-wide use in all branches of medicine, particularly because surgeons have practically found Koch's experimental deductions to be true.

Until recently, however, very few practitioners have recognized the fact, to which this same investigator called attention, and which has been particularly brought forward by his pupil Laplace in the Berliner klinische Wochenschrift for October, 1887; namely, that in the presence of albuminous substances, an albuminate is formed with the mercury, which renders the dressing useless, save in that it does not form a fruitful spot in which germs may multiply.

Klein (Fifteenth Annual Report of Local Government Board, 1886, p. 155) goes even further than this, and asserts that distilled water should always be the solvent used in making this preparation, since the salt may otherwise unite with proteids or other substances and become useless.

Although we are now accustomed to use tartaric acid in our antiseptic fluids in order to avoid such accidents, the danger of the formation of albuminates nevertheless exists to a considerable extent—sufficiently, at least, to warrant the use of other preparations of mercury, even if their antiseptic power be somewhat less than the bichloride, and if they do not bear similar relations to the albumins.

For some time past the biniodide of mercury has been thought of and been tried in this country and abroad. Recently, in a communication in the Proceedings of the Royal Society of Edinburgh, vol. xv, p. 235, Dr. G. Sims Woodhead has given the results of a series of experiments carried out with the red iodide of mercury, using as central tests the bichloride in solutions of the same strength as the more recently employed salt. The first part of his research was devoted to the determination of the action of albumins on these salts, ox blood being employed. The results reached indicate that Laplace and Koch are entirely correct in their statements, and that corrosive sublimate may be rendered useless in the presence of albumin, an insoluble precipitate of the albuminate of mercury being formed. On the other hand, the biniodide is entirely free from these disadvantages, albuminous solutions of this salt remaining clear for days. The solution is to be made by dissolving 15½ grains of the salt with a slight excess of iodide of potash, in 34 ounces of distilled water. Such a solution is stable, but is not one, in reality, of biniodide of mercury, but of the double iodide of potash and mercury.

Turning from this question to the effect upon germs, Woodhead placed the bichloride solution and blood in a dish exposed to the air, and also exposed in a similar manner and in a corresponding place the biniodide solution and blood. As a control experiment, a third jar holding the same quantity of blood and distilled water was put alongside the others. At the end of six weeks there were a few micrococci and bacilli in the bichloride solution; its surface was covered by a luxuriant growth of *penicillium glaucum*, but there was no odor on stirring the liquid.

In direct opposition to this was the state of the biniodide solution, which was absolutely free from any change.

In the control jar, of water and blood, the odor was exceedingly bad and the fluid swarmed with micro organisms.

By the addition of tartaric acid or common salt to a bichloride solution, we increase its absorbability into the body, and increase the danger of a systemic effect. Here again, however, the biniodide excels the bichloride, for—as has been pointed out by Cash in the Local Government Board Report (supplement), 1885, p. 186—guinea-pigs are much more tolerant of it than of the bichloride, while most pharmacologists agree that the lethal dose of the biniodide is nearly twice as great as of the bichloride. It is, however, worthy of note that, should the former be taken in a toxic dose, none of the antidotes to the latter would be effective.

From these studies, therefore, we are in a position to make thorough trials of the biniodide as an antiseptic, and to replace the bichloride with it if it prove practically useful.

Very recently Dr. Bernardy has used it in this city with very good results, and further

trials will certainly be made. Woodhead has found, too, that such a solution is very useful in the preservation of specimens.—*Med. News.*

THE TREATMENT OF ACNE. — Dr. Isaac, assistant to Dr. Lassar's clinic for skin diseases in Berlin, discusses in the Berliner klinische Wochenschrift, No. 3, 1889, acne and its treatment. As an ætiological factor in the production of acne, he considers that hereditary peculiarities in the opening of the subaceous glands may have an influence. In such cases the subaceous duct is wide and funnel-shaped, offering a nidus for dirt and other septic material. Though such anatomical peculiarities may in exceptional instances predispose to acne, its causes are to be sought for in disturbances in the digestive, circulatory, or of the generative apparatus. The treatment in vogue at Lassar's clinic is the following:

℞ Naphthol β, 10·00
Sulph. præcipitat., 50·00
Saponis virid., } ää 20·00
Vaseline, }

This salve is applied thickly to the affected portion of the skin either by a brush or spatula, and left *in situ* for from half an hour to an hour. On the following day one notices some desquamation of the epidermis and slight irritation and retraction of the skin. This procedure is repeated every day until desquamation of the entire epidermis has taken place. Should much irritation be produced, the treatment may be temporarily stopped and the affected surface covered with an indifferent powder or with Lassar's paste. For especially stubborn cases the following modification of the ointment may be applied:

℞ Pulv. cretæ albæ, 5·00
Naphthol β, }
Camphor, } ää 10·00
Vaseline, }
Saponis virid., 15·00
Sulphur præcipitat., 50·00

The addition of the camphor increases the irritative power of the ointment, which in this form should only be left on the skin fifteen minutes.

Another formula which has been found serviceable in the treatment of acne is the following:

℞ Resorcin, }
Zinc oxid., } ää 5·00
Amyl, }
Vaseline, 10·00

—*Journal of Cutaneous and Genito-Urinary Diseases*, May, 1889.

INTERNAL ADMINISTRATION OF SULPHUR.—Sir Alfred Garrod recently (April 6th, 1889) published a paper on "Some Chronic Diseases of the Alimentary Canal and Liver, also of the Skin and Articulations, and their Treatment by the long-continued exhibition of small doses of Sulphur given in the form of the Compound Sulphur Lozenge." The form most suitable for administration is that of a lozenge containing five grains of the milk of sulphur and one of cream of tartar. This lozenge is far from disagreeable, contains sufficient sulphur for therapeutic purposes, and patients are willing to take it for an almost indefinite period of time. In many cases one lozenge a night is quite enough to effect the desired end; if required, two may be taken at bedtime, or one each night and morning.

Therapeutic Effects on the Alimentary Canal.—In the majority of cases a single lozenge taken every evening prevented the necessity of the administration of ordinary aperients, though not actually purgative. Distinct purgative effects are exceptional. The secretion of the liver is often increased in sluggish action of that organ, as is shown in the altered character of the fæces, which have been brought from a pale clay-color to the normal state. Although the action of the sulphur is slow compared to mercury, still in chronic torpid conditions of the liver the advantage of sulphur over the mercurial treatment is undoubted. In hemorrhoidal conditions not suitable for surgical interference, and in some cases of bleeding from the rectum, the most marked beneficial effects from the continuous sulphur treatment have been seen.

Diseased Condition of the Pulmonary Passages.—That sulphur acts upon other mucous membranes besides those of the alimentary tract is made evident by the odor of sulphurreted hydrogen which can sometimes be detected in the breath. Experience has shown that certain forms of bronchitis, especially in the aged, are beneficially influenced by its administration.*

Diseases of the Skin.—Sulphur is eliminated by the skin. In acne, psoriasis and prurigo it is useful either alone or with some other form of treatment: also in some forms of localized eczema, especially in those connected with the gouty diathesis, as pruritus ani.—*Montreal Medical Journal.*

TREATMENT OF COMMON MEMBRANOUS SORE THROAT.—J. Solis Cohen, in N. Y. Med. Journal, in an article on this affection, says of its treatment:

When the diagnosis of common membranous sore throat can be made out with certainty, there is nothing calling for special treatment; but the treatment pursued in ordinary sore throat may be generally followed with advantage. It is practically a self-limited disease with a tendency to recovery. When fetor exists, as during the detachment of patches of exudation, antiseptic and detergent sprays may be employed. Solutions of borax, boric acid, carbolic acid, potassium permanganate, hydrogen peroxide, etc., are appropriate. Lemon-juice is often an agreeable and an efficient application.

In those individuals, especially strumous and tuberculous subjects, in whom there is a constitutional proclivity to chronicity, or to the recurrence of the peculiar manifestations, more active measures will be required. Locally, frequent application of the dilute acids—say, every day or two—affords the most satisfactory results. Internally, iron and cinchona preparations should be administered. Opium in small doses is of special efficacy, not as a narcotic, but as gentle stimulant or nervous tonic.

* See Graves' Clinical Lectures.

Nux vomica and arsenic may be employed for similar purposes. The diet should be highly nutritious and easily assimilable. Unnecessary exposure should be avoided. Supporting measures generally, hygienic as well as medicinal, should be persisted in.

When membranous sore throat exhibits a tendency to phagedæna, the treatment for gangrenous sore throat becomes indicated. Common membranous sore throat may be in doubt. In that case the prudent course is to treat the affection as diphtheria, but to avoid the recommendation for diphtheria of some indifferent remedy during the exhibition of which a case of membranous sore throat has ended in recovery. When extension to the larynx occurs and threatens suffocation, tracheotomy or intubation, to avert death should be practiced, as in croup or diphtheria.

In cases of recurrent or chronic membranous sore throat, the cause should be searched for in the dwelling of the patient or in his place of vocation. Should either of these be found unhealthy, nothing short of change to healthier surroundings will be likely to be of permanent service.

Nephrolithotomy for Renal Calculi.—Dr. Arthur E. Barker, Surgeon to University College Hospital, reports in the London Lancet an interesting case of nephrolithotomy.

The patient, aged thirty, a coachsmith, was admitted to the hospital Oct. 31st, 1888, suffering from symptoms pointing to renal calculus. Since the age of eleven years he had suffered from pain in the left side, below the left ribs; this pain was aggravated by exertion, and worse at night. The urine was never clear, depositing much muco-pus and phosphates. On Nov. 9th an oblique incision was made in the left loin below the last rib; the kidney was very easily reached, and a stone was at once felt through the anterior part of the pelvis. A short cut, about half an inch in length, was made in the pelvis, in a direction directly outwards. Through this the left index finger was introduced, and several stones as large as marbles were felt. These were removed by scoop or forceps, and without much difficulty, except the two last, which were locked in the calyces of the organ, and required stretching of the orifices of the latter in order to remove them. Altogether six rounded and facetted calculi were removed, and some fragments of phosphatic matter, the total weight being about an ounce. Several bleeding vessels were caught with the forceps, which were left in the wound for a few hours, supported by a sponge stuffed into the opening around a large flanged tube; a sal alembroth gauze dressing was firmly bandaged over all. There was severe shock, which lasted several hours. After the instruments were removed, the patient experienced much relief; he passed urine late in the evening. The next morning he was very well, and the sponge was taken out of the wound.

The wound closed readily, and after December 13th no urine came from it. All pain in the kidney ceased after the operation. The urine became normal, or nearly so.

Dr. Barker adds that there is no doubt that the removal of the stones was greatly facilitated by the opening direct into the pelvis of the kidney. The effect of the dragging of the forceps on the pedicle of the organ, and the rapid disappearance of the shock after their removal, was most interesting, and gives an indication for future practice.

Observations on the Use of Glycerin Enemata in Children.—Geo. A. Carpenter in Lancet, Nov. 10, 1888, writing on this subject says:

During a period of four months glycerin enemata were used at the Evelina Hospital for the treatment of constipation, to the exclusion of purgatives. The children were not allowed to pass more than two days without an action of the bowels. A carefully prepared table is submitted, showing the result of two hundred and fourteen injections in sixty-three children. One drachm of glycerin was given in one hundred and fifty-six cases, one drachm and a half in forty-eight, and two drachms or more in but nine.

In one hundred and fifty-four instances the injection was followed by normal motions, in twenty-six they were loose, and in twenty-four of more than normal consistency or composed of scybala. In ten only did the enema fail to act. In no instance were there unpleasant symptoms, either local or constitutional. No child was found whose bowels failed to respond to the glycerin stimulation at one time or another.

As regards the time of action, ninety-five injections were followed by motions within five minutes, ninety within thirty minutes, while with the remainder the time varied from thirty-five minutes to eleven hours. The failures or cases of delayed action were in tubercular patients or those who had undergone operation and were therefore restrained from exercise or movement.

After a brief summary of the action of various cathartics in common use among children, the author expresses himself as very favorably impressed with glycerin enemata, "which are easy of application, unattended by pain, quick and natural in action, and followed by but few failures."—*Archives of Pediatrics*, May '89.

Alcohol Bath for Erysipelas.—Reasoning from the fact that a ninety per cent. spiritus vini is a sure germicide for the coccus of erysipelas, Behrend (Rundschau, 5 H., 1889), who was in charge of a large hospital, in which erysipelas occurred frequently, determined to try it as an application. He was fortunate in being able to begin the treatment of all the cases in their incipiency before grave symptoms arose. All the patients were required to bathe the affected parts and extending one-half inch beyond the border into the healthy skin, three times daily, with a 90 per cent. alcohol. The result was a complete arrest of the disease, without exception, and in three to five days a cure. This method gives very quick results, and is not painful as that recommended by Hueter, of carbolic acid injection; or Ebstein's modification, namely, the external application of a 5 per cent. carbolic acid ointment; although the latter claims to have had first-rate results, and no carbolic acid intoxication from absorption, even when the acid was detected in the urine. Ebstein has treated by this method twenty-seven cases, involving the skin of the head, face, neck and lower extremities.

The Medical Age.

Vol. VII. DETROIT, JUNE 10, 1889. No. 11.

Original Articles.

A CLINICAL LECTURE—SCIATICA, CEREBRO-SPINAL MENINGITIS, NARCOLEPSY.

BY CHARLES L. DANA, M. D., NEW YORK.*

(Reported Phonographically).

GENTLEMEN:—This patient is a German by birth, is about 50 years of age. He has been in good health all his life until lately; has never had rheumatism or gout.

About six weeks ago, without any special reason, he was seized with a severe pain in the small of the back, which extended down the back of the thigh and leg as far as the ankle-joint. The pain was intermittent in character, sometimes worse than at other times, and generally worse at night. It was accompanied by feeling of heaviness and numbness in the leg. Lately the pain has been extended to the right hip. His physician administered large doses of salicylate of soda without the slightest effect.

As regards his present condition, he is a rugged-looking man. He walks with a limp, keeping his leg stiff, and carrying it carefully. On examining his legs, one sees no signs of wasting such as occurs in old cases of sciatica, nor is there any paralysis. We will now feel for tender points, which are never entirely absent in sciatica.

There should be one in the space between the tuber ischii and greater trochanter. It is present in this case. There should be another point at the back of the thigh, another over the tibia, and others over the calf of the leg and on the outer side of the ankle. These are not distinctly present now.

If the diagnosis is doubtful in these cases, it is a good plan to put the patient in a recumbent position on the floor or table, and then flex the affected thigh upon the abdomen, keeping the knee straight. This manœuvre will produce great pain in the region of exit of the sciatic nerve. Such pain is produced in this patient, and I have no doubt but that he is suffering from a form of sciatica which has its location well up in the sacral plexus, and for that reason, affecting also some of the lumbar nerves, thus giving us some of the symptoms of a lumbago also.

Sciatica is a form of neuralgia most common at this patient's period of life, viz., between 40 and 60, and is a very different kind of neuralgia from those generally met with. It is a neuralgia that indicates either a local neuritis, or some degeneration, or diathetic irritation of the nervous system. It is not an evidence of a general neurosis, but of some change in or around the nerve, as it passes down the limb. Many of the cases of sciatica we meet with are due to a very low grade of neuritis of rheumatic, gouty, or diabetic, origin. It is in other cases not connected with any special diathesis, but is due to exposure or actual traumatic influences. In letter carriers, and others who are on their feet a great deal, and who put unusual strain on the sciatic nerve, I have seen very typical forms of the disease. Sciaticas occasionally occur in early life, in women especially, and they then are usually of typical neuralgic character.

TREATMENT.—The treatment of this disease varies with the etiology and pathology. In such a case as this before us, I should recommend an effective cathartic first of all, and then place two large blisters about the size of the palm of one's hand along the course of the nerve, one high up and the other low down. In his case I think the treatment should be purely symptomatic. We cannot accomplish much by constitutional remedies. Rest of the limb is very essential. If the pain is very severe, I should, after the blister has taken effect, give him injections of MAGENDIE'S solution. The most effective and quickest remedy, is a hypodermic solution of morphia and atropia combined, $\frac{1}{150}$ of a grain of atropia and $\frac{1}{4}$ of morphia repeating the injection every day, increasing the dose a little each time. By adopting this procedure, and renewing the blister occasionally, we shall, I believe, do the best that can be done for him.

Sciatica is a disease which usually runs a course of about three months. A few cases will get well in a short time; and most of them you can help a great deal if you do not shorten the attacks. Often the galvanic current does well; less often the faradic. Then again, a mixture we employ here has proved very effective in a great many cases, viz: Oils of gaultheria and turpentine, 15 drops of each three times a day.

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CEREBRO-SPINAL MENINGITIS.

These are specimens of the spinal cords of two cases of spinal meningitis. The one represents a case of epidemic cerebro-spinal meningitis, or spotted fever; the other represents a form of cerebro spinal meningitis which occurs in connection with pneumonia and other infectious diseases. Let me here state what I believe to be the proper classification of the different forms of cerebro-spinal meningitis.

We have first, the *epidemic infective cerebro-spinal meningitis*, which occurs usually as an epidemic but occasionally sporadically. This form of meningitis is due to a micro-organism known as the *diplococcus intercellulare* of WEICHELBAUM. (2) *The second type* of cerebro spinal meningitis is that associated with *pneumonia* and some other infectious or inflammatory trouble. This is due to a different micro-organism—viz: the *diplococcus pneumoniæ* of FRAENKEL.

Besides these two forms, which are the ordinary kinds met with, we have also (3) *the traumatic form*, occasionally occurring, and due of course to the ordinary pyogenic micro-organism. The patient from whom the first specimen was taken, entered Bellevue Hospital suffering with severe pains in the back, rigidity of the neck, irregular fever, and occasional delirium; also with vomiting, unequal pupils, and other symptoms of an inflammatory and irritating condition of the brain and spinal cord. He also had a pneumonia of low grade, and died within a day or two with symptoms of exhaustion and stupor. The cord, as you see, presents signs of inflammatory exudation mainly sero-fibrinous in character, which involves the subarachnoid space of the cord, and also the subarachnoid spaces and ventricles of the brain. There are numerous adhesions between the membranes and the cord, and these membranes are congested and show extravasations of blood at different points.

The second specimen was taken from a typical sporadic case of spotted fever or epidemic cerebro-spinal meningitis, and the symptoms were the ordinary ones of that form of disease.

Epidemic cerebro-spinal meningitis is a disease that was first described with care, in this century, and which has a great many curious characteristics. It often develops epidemically in different parts of the world at almost the same time, and spreads through the new and old continents without regard to any known laws. In the early part of the present century an epidemic appeared in Switzerland, and almost at the same time in New England. Somewhat later an epidemic appeared in Holland and other parts of Europe, and at the same time in Kentucky and some Western States. Within the last year or two, epidemics of a virulent kind have appeared in Germany, and there have been some in Kentucky as well. At the present time there is a very violent one in Southern Texas.

The disease prevails only in temperate climates, but rather more in the Southern and Western parts of this country than in the North. It appears oftener in cold than in warm seasons; it developes in rural districts and small towns rather than in great cities. It has ravaged different parts of France but never attacked Paris, and is a disease which is apparently increasing rather than diminishing in malignancy.

In the older epidemics, the rate of mortality was from 40 to 60 per cent.; in some of the more recent it has been as high as 90 per cent. It is a law of epidemiology that epidemics have a rise in virulence and extent, and then a decline. Small-pox and syphilis are examples of epidemics that are on the decline. When cerebro-spinal meningitis once gets a foothold in a locality, it is apt to stay there. It is not a contagious disease, but simply infectious, and, like influenzas, passes at certain periods over different countries.

About the symptomatology of the disease, I shall make but few remarks. A great many different types of this fever have been described. Probably the simplest classification is that of WURDERLICH, viz., (1) the abortive forms; (2) the mild forms, and (3) the malignant forms. Different epidemics are characterized by a greater or less prevalence of the petechial spots. In the present epidemic in Texas I am told that the purpuric eruption is extremely well marked, and that inflammations and effusions in the joints are quite common.

The disease attacks young children as a rule, and in most epidemics a great majority of the cases are under the age of ten years. Its course is generally very rapid, ranging from one day to five, but in a certain proportion of cases it may last for 30 or 40 days before health is established or death occurs.

I can say little about the treatment of these cases, because nothing new in recent times has been added to the therapeutics. I believe that opium, stimulants, and food, are the best things. The great problem is to cut short the epidemic or prevent its attacking individuals. The infection is believed to enter by the respiratory passages, and, therefore, a physician should in all cases see that those who are exposed to the disease, have plenty of fresh air; and it appears to me it would be worth while to attempt the use of respirators, covering the nose and mouth. If there is any clinical evidence that the disease is acquired through the digestive organs, the water or food should be made as pure as possible, the water being boiled or sterilized, and the food carefully selected and cooked. It should be borne in mind that very

few acute infectious diseases, if any, can get into the system except through the respiratory or digestive passages, and if you guard these portals carefully, you ought to be able to prevent a great many cases of this particular disease. Certainly with a disease in which the mortality is so frightful and the treatment so ineffective, especially strenuous efforts ought to be made to keep the infection out of the body.

NARCOLEPSY AND MORBID SOMNOLENCE.

The patient I show you here, is a man 42 years of age, who has been suffering for seven or eight years from a peculiar disorder of sleep. His family and personal antecedents show nothing specially abnormal, though he has been always of a nervous temperament. He gives no history of syphilis or excessive indulgence in alcohol or tobacco.

Six or seven years ago he began to have his present trouble. He found that while at work, or walking on the street, he would suddenly feel an irresistable desire to go to sleep. He would all at once wake up and find that he had gone two or three blocks out of his intended course. These sleeping spells came over him several times each day, and lasted for from five to thirty minutes. His sleep at night is fairly good. He has written me an account of his own feelings and experiences which is very interesting, and part of which I will read here:

"During the past 12 months as I stray through the streets I stoop to pick up imaginary things off the side-walk and attempt to go in door ways and other little foolish things. When I am busy in the house, I sleep but very little, and the following day my head aches very severely. Sleep will come on twice as often as usual, and some naps almost take my breath away, and my head falls on my chest or backwards. I am awake in these fits and try to let my head down easy. Often, in spite of my efforts it falls back, and I can hear the back of my neck crack, and through fright and pain jump out of the fit. I fancy there is something wrong with the back of my neck, it pains me so all the time.

I have often, through force, roused myself out of these fits, and in doing so, shocks like electricity dart through my body and almost deprive me of my breathing. I am of a very nervous disposition, distant and shy among strangers, but quite the reverse among those I know. I am of a very quick temper, and when I get into any trouble, I almost get off my head.

I have often drank more than was necessary, through company's sake, but never went on a week's spree. A reasonable quantity makes me cheerful and good-natured, but should I indulge too much, I lose my senses and forget what I say or do, and become dangerous. I am all the time troubled with constipation more or less. Should I drink 'lager bier,' it would keep me as regular as clock-work, but it makes me sleepy."

A careful physical examination shows no signs of any organic disease, nor evidence of syphilis.

Now, the question arises whether this is a case of simply excessive drowsiness, or of hysteria, or epilepsy, or of a peculiar neurosis. It is evident from his history, and from the long and unsuccessful effort that has been made to relieve him, that this condition is not one of ordinary excessive drowsiness from digestive troubles or toxic elements in the blood. He has no hysterical symptoms or stigmata; and finally, as regards epilepsy, I examined him in one of these attacks, and found his pupils are small, as in normal sleep, and not dilated as in epilepsy. He has no convulsive movements, no aura, and no change in the circulation of the face such as pallor or congestion. He can be aroused at any time out of his sleep, and altogether the facts are conclusive, in my opinion, that his disease is not epilepsy. His case coincides very well also with the description of a peculiar form of nervous disorder known as

NARCOLEPSY,

a disorder of which a clinical description was given several years ago by a French writer named GELINEAU. It appears to be a periodical neurosis that is distinct from epilepsy and the other neuroses, and not dependent upon any specific organic condition, or diathetic note, so far as I know.

The following classification of the disorder of sleep is the one I would use in describing these conditions:

1. States of Normal Sleep. Somnus. *Hypnosis.*

2. States of Absence of Sleep. *Ahypnosis.* Insomnia, Egregorsis, Vigilance.

3. States of Imperfect or Partial Sleep. *Hypo-hypnosis.* Dreams, sleep drunkenness, night terrors, nightmare.

4. States of Perverted or Artificial Sleep. *Para-hypnosis.* Somnambulism, sleep-walking, hypnotism, mesmerism, trance, somnium.

5. States of Excessive or Frequent Drowsiness and Sleep. *Hyper-hypnosis.* Morbid drowsiness or somnolence, paroxysmal sleep, epileptic sleeping attacks, trance sleep, carus, cataphora, lethargy, sleeping sickness of Africa.

The case before us represents one of the types of excessive drowsiness or hyper-hypnosis. These states of morbid drowsiness take different types or forms. There is the hysterical form of drowsiness or trance sleep. Then you have a morbid drowsiness due to organic brain disease and syphilis, which includes a peculiar

disease known as the sleeping sickness of Africa. Then, again, there are a great many states of morbid drowsiness due to various disorders of nutrition and digestion, occurring in old people, in dyspeptic people, fat and anemic people. We have, finally, paroxysmal forms, such as the epileptic somnolence, and this form is before us, viz., *narcolepsy*. Narcolepsy is, therefore, one of the forms of paroxysmal morbid somnolence.

The cause of this form of disease we know nothing at all about. It usually occurs in persons of neurotic temperament, and seems to be brought about sometimes by excessive mental or nervous strain, or indulgence in alcoholic or sexual excesses, or perhaps an indulgence in a natural tendency to drowsiness until what at first was only a habit gradually becomes an actual disease.

The pathology of this disease we also know nothing of. There are many cases of mordid somnolence which lead me to think that perhaps we have a "sleep centre," which is disordered in this disease just as the centres that control the action of the stomach, liver or kidneys may be disordered, producing functional derangement of these organs.

In the treatment of this condition a great many measures have been tried, but so far without avail. I propose to put this patient upon small doses of tincture of belladonna, and to have him wear spinal ice-bags on the upper part of the spine for six or seven hours daily. Some forms of neurotic morbid somnolence are benefitted by small doses of bromides.

SYPHILOPHOBIA AND SPERMATOPHOBIA.

BY E. P. HURD, M. D.

Every physician has at times patients who are the victims of unreasonable fears. They are depressed from apprehension of something which is simply a bugaboo. One person imagines from certain really trifling nervous symptoms, that he has softening, or a tumor, of the brain; some are always worrying about their liver; others about the state of their bowels. An exaggeration of such morbid mental conditions constitutes hypochondriasis.

The following cases of what I may appropriately designate as *syphilophobia* will be of interest to the readers of the MEDICAL AGE.

A. B., a robust farmer, aged 25, of Seabrook, N. H., was brought to me March 25th, 1889, by Dr. FELLOWS, his physician. This young man was impressed with the belief he was a victim of syphilis. He had impure connection eight weeks previously; a soft chancre appeared in the course of five days, which was cauterized by Dr. FELLOWS, and soon got well. Some hint that this sore might prove to be an infecting chancre, to be followed by syphilitic manifestations, was dropped, and A. B. caught it up, and long after the sore was healed dwelt upon the thought, till it became a besetting idea. Dr. FELLOWS being very soon convinced that the sore which he had treated was a chancroid, did what he could to disabuse the patient of his notion. Meanwhile A. B. procured some medical books treating on venereal disease, and diligently posted himself in the symptomatology and cause of syphilis.

When he came to me, March 25th, he was mentally in a deplorable condition. He was certain he had the premonitory symptoms of ulceration of the throat, and a cutaneous eruption. Dr. FELLOWS explained that the throat ulceration was a simple angina from cold, and the skin disease German measles, then prevalent.

I found nothing the matter with A. B., but fear, and tried to reason him out of his foolish notion. I assured him that if he had syphilis, I certainly knew nothing about the disease, and would give up ever again treating that affection. If, however, I *did* know anything about the disease, *he* had never had the first symptom of it, and was making a fool of himself. My positive assertions seemed to make little impression upon him; he thought Dr. FELLOWS and myself "conscientious," but felt we were in error. In fact, the young man had ceased to sleep nights, and had utterly lost all appetite, as well as all interest in his work.

I urged him to give up reading medical books and to seek diversion. He asked for anti-syphilitic treatment; I did not think it proper to so far make concession to his folly as seriously to treat him for a disease which I knew that he had not, and Dr. FELLOWS in this agreed with me.

A. B. afterwards came to my office alone. He was just as wretched as ever; still had "syphilis on the brain." The one dominant idea now had the mastery so he could not apply himself to reading or to work. The most of his time, he said, was spent in self-reproaches and in lamentations. What little sleep he got was obtained by taking chloral, paraldehyde, or sulphonal. He still believed that he had the initial lesions and the first manifestations of a disease that was certain soon to end in ulcerations of the bones, phagadena of the throat, and gummata of the brain.

I urged A. B. to go to some private asylum for nervous diseases, but his means were not such that he could afford this; he asked if he might not be sent to a lunatic asylum. He would, he said, go to Concord, N. H., of his own free will, and ask admission to the asylum there. On consultation with Dr. FELLOWS, this seemed to be the best thing to be done in the case, and we provided the young man with the necessary papers, commending him to the physicians of the asylum, not as a common lunatic, but as a

victim of a form of depressive melancholia, with a fixed, dominant idea that he had become syphilitic, and was doomed to physical and mental wreck in consequence.

I understand that the young man has been admitted to the Concord Asylum, with such privileges and freedom as become one in his condition.

Similar to the above case (whose sequel I shall watch with interest) was that of C. D., of Amesbury. This young man, aged twenty, of neurotic temperament, but of fair general health, gave me a great deal of trouble all through the winter of 1888. He thought he had experienced the inital symptoms of syphilis, though I was convinced this was a mistake. An attack of pharyngitis in January gave him great consternation, and I had the utmost difficulty in persuading him it was not specific. A little impetigo about the groins, became in his imagination a formidable syphiloderm. The patient's fears, in connection with this insignificant cutaneous affection, cost him the price of several visits to Amesbury; I labored, with ultimate success, to convince him that he was having his worry and many sleepless nights all for nothing. Frequent attacks of headache, in February, gave him grave apprehension of syphilis of the brain; it took some time to dispossess him of this notion. So matters went on. C. D. would often make a journey to my office, five miles, to show me a pimple that had appeared on some part of his integument, and which seemed to him to be *suspicious*. I did not ultimately succeed in ridding him of his delusion till summer. This patient was more reasonable that the one before alluded to, for he would always pluck up hope and take courage when he heard my positive assurances that the thing which he feared had not happened to him; and when, finally, he came to understand that without such and such manifestations, within a certain definite space of time, he could not have syphilis, which manifestations in his case were absent, he obtained emancipation from a besetting notion which had long made him miserable.

A third case is that of J. K., aged forty-five, married, a citizen of Newburyport. This case in many respects resembles that of C. D. For three months this patient (otherwise in fairly good health) was a victim of this peculiar psycho-pathy. His sore throats were venereal; his occasional cutaneous pimples, syphiloderms; his visceralgias, the result of parenchymatous gummata!

Mr. K., like the other gentlemen mentioned in this connection, had been a diligent reader of medical books, and was well posted as to the technology of syphilis; like the others, moreover, he had never really seen syphilis in its various abhorrent forms. Mr. K. finally got rid of his delusion after a rest from labor and a visit to New York, where some medical friends whom he consulted helped to bring a sounder state of mind.

I have had similar experience with a class of patients whose malady is generally attributed to masturbation, but which I am certain is more dependent on a general neuropathic inheritance, fostered and promoted by various debilitating influences, of which self-abuse is only one and by no means the most important factor; I refer to a class of real sufferers who are appropriately termed *spermatophobists*. I have seen young men so alarmed over really physiological, and hardly to be called harmful, seminal losses, that they were brought almost to the point of mental wreck. If, however, the occasional losses of fluid, urethral, prostatic or seminal, are of little detriment *per se*, the state of mind known as *spermatophobia* is an acute psycho-cerebral disease belonging to the order of depressive melancholia. Several cases of insanity cited by LALLEMAND as consecutive to seminal emissions are instances of the same kind, the insane neurosis developing, not by spermatorrhœa, but by spermatophobia. Another evil is likely to result from the intense concentration of the attention on certain organs, and organic states, which are characteristic of this class of patients. By a law of nervous function not yet well understood, the very evil which is dreaded may be engendered, and what MALICOT calls *physiological spermatorrhœa*, may end in the pathological kind. As means to the end, we need only mention the well known effect on certain ill-balanced minds of the perusal of a class of books unfortunately too prevalent, and of sensational advertisements (from which good newspapers are not always free), published in the interest of quackery, and appealing to all who would not wish in the flower of their youthful days, to part with their manhood and vitality.*

In the treatment of seminal emissions, there is everything in disabusing the mind of the patient of the idea that he has spermatorrhœa, or that the nocturnal discharge is *per se* injurious. As for spermatorrhœa, I have never seen a case, and believe it to be exceedingly rare. An old gentleman, MR. B., several years ago consulted me for an infirmity which he had been told was spermatorrhœa; he had both nocturnal and diurnal discharges of what looked like semen, and which sometimes impregnated his urine. Repeated examinations of this fluid showed that there was not a particle of semen in it; the microscope did not exhibit a solitary spermatozoön. MR. B. had inflammation of the prostate, with a very sensitive urethra; the fluid, which was prostatic and

* I have referred to these methods before, in similar language, in an article reviewing Malicot's book, and published in the Medical Record, vol xxvi.

urethral mucus, sometimes flowed out after urinating, and sometimes was expelled by the ejaculatory muscles, but there was never any sexual erethism or erection.

As for nocturnal emissions of semen in healthy young men, if not too frequent, they are not detrimental. This is a point to impress upon the victim of spermatophobia. Let him understand that this function is a natural one, and more or less secretion inevitable (as long as the testicles are in a healthy condition), and he will cease to worry. He should also understand the necessity of being on his guard against everything which might unduly stimulate the sexual function—tobacco, alcohol, hearty suppers, lewd company, romances of a certain character—above all, self-abuse; should sleep on a hard bed, take a cold bath every morning to invigorate the system, and look forward to early marriage as not only *permissible*, but as physiological and hygienic. But even marriage is chiefly healthful in leading eventually to *moderation* in desire and gratification, and in bringing about disgust of an indulgence which, as MONTAGUE says, is "the most foolish act that any philosopher ever perpetrated."

A CASE OF CHRONIC CATARRH OF THE MIDDLE EAR, SIMULATING DEAF-MUTISM—RECOVERY.

BY WM. E. CONROY, M. D., EAST SAGINAW, MICH.

Frederick A., æt. 7, was brought to my office on the 2nd of May, 1889, by his mother. Mrs. A. stated that the boy was, at birth and until he was two years of age, a strong, healthy child, and in full possession of all his faculties; that he was quick and intelligent, and made the efforts to talk usual in a two-year-old, succeeding in the articulation of a few simple words. But about this time, it was noticed that his sense of hearing became less acute, without apparent cause; the development of the faculty of speech was arrested, and even the few words which he had learned to utter were apparently forgotten. Since that time he has had no serious illness, but is seemingly deaf to all but very loud sounds, and never articulates a word distinctly. In all other respects he is well and like other children in his tastes and habits. Some ten days before I saw him, the mother took the boy to Dr. HOWELL, of East Tawas, in the hope that something might be done to prevent his future from being shadowed by the pall of deaf-mutism. Dr. HOWELL found the little patient's ears occluded by masses of inspissated cerumen, very hard and closely packed, which he succeeded in removing by the syringe in several sittings. The doctor then recommended that other advice be taken, and I saw the boy, as stated, on the 2nd of May. His condition was as follows:

A slender, active, bright-looking boy of average height. Accurate testing of his sense of hearing was impossible, but various experiments made to attract his attention while his face was turned from me, were so far successful that I was satisfied that he was by no means totally deaf. He would not, and apparently could not, articulate words. Examination of the ear revealed—A. D.—*auricle* and *meatus* normal; *memb. tymp.* sunken and of a pearl-gray color, except at posterior inferior quadrant, where a perforation of about 1 mm. in diameter was surrounded by an area of congestion. The edges of the perforation were dry, and there was no pus or mucous to be seen in the ear. The *Eustachian tube* was impervious to POLITZER'S method of inflation.

A. S.—Auricle and *meatus* normal; *memb. tymp.* sunken and dull; *Eustachian tube* impervious.

Pharynx and *Posterior nares.*—Mucous membrane thickened and relaxed, and nearly covered with tenacious mucous.

Of course the diagnosis of chronic naso-pharyngeal catarrh, involving the Eustachian tubes and middle ears, was certain, but the main question was whether its long duration had brought about such structural changes in the sound-conducting apparatus that the prognosis as to useful hearing was hopeless.

In spite of the fact that the boy had been practically deaf, and entirely dumb for five years, and that another aurist had pronounced him a deaf-mute for life, I gave encouragement, and proceeded to treat the catarrhal condition of the naso-pharynx and endeavored to aid the healing process going on in the perforated drum-head. At the same time I instructed the mother to train the boy in the use of his voice, insisting that he be denied the possession of anything which he craved unless he at least made an attempt to ask for it, and that no attention be paid to signs or gestures, his usual method of communicating his desires.

Success was immediate, and far more complete than I had anticipated. In three days I could inflate the tympanum by POLITZER'S method, and in less than two weeks he could articulate distinctly enough to be easily understood by a stranger, and could hear conversation held in an ordinary tone at a distance of twenty feet. I then allowed him to go home with the understanding that treatment be continued by DR. HOWELL, who wrote me under date of May 28th, "our little patient is doing splendidly; can articulate very distinctly, and gaining every day."

I have reported this case at some length, because in my experience and reading it is

unique. The almost absolute deafness, the entire lack of the power of speech, both persisting for five years, and above all the surprisingly rapid improvement upon the removal of the ceruminous plugs and the relief of the catarrh, combined to make this one of the most interesting cases that has ever come under my observation.

CLINICAL NOTES FROM PRIVATE PRACTICE.

SYPHILIS.

DR. CONANT SAWYER, Physician to Auburn (N. Y.) Prison, gives the following resumé of cases of syphilis under his charge:

CASE 1.—Patrick Mc Graff; aged 35 years, contracted syphilis in 1883.

At the time I first saw the case (December 28, 1888) he was troubled with alopecia, and very bad glandular enlargement and ulceration of lymphatic glands of the neck, of twenty months standing.

I considered this a bad case, as it had failed to yield to iodides and mercurials after very thorough trial of many month's duration. I then (December 1888) tried syrup trifolium comp. in dessertspoonful doses every four hours continuing to the present (May 10, 1889) with the happiest results.

Externally I used dressings of iodoform and iodide of starch. The glands have ceased to discharge and are apparently healed.

CASE 2.—Edson Pease; age 49. Had chancre and bubo, alopecia and syphilitic ulcers of the head and neck, contracted in 1862. He received the usual mercurial treatment, and later used the mercurials and iodides from time to time. As the disease did not yield readily I substituted syrup trifolium compound, continuing to the present time. The man appears to have fully recovered.

CASE 3.—John Klok; age 55. Disease dates from 1873 and was long treated with mercurials. Has taken syrup trifolium compound, in combination with quinine and iron, three times a day, for chronic bubo of the groin, and is so much improved I consider a permanent cure simply a matter of time.

CASE 4.—Geo. Robinson; age 36. Contracted chancre in 1878. At commencement of treatment had syphilitic eczema of testicles and groin, with slight alopecia. I used syrup trifolium compound, and Jan. 5, 1889 the patient was discharged cured.

CASE 5.—Frank Spaulding, age 34. Contracted chancre, followed by bubo, in 1882, and had undergone the usual mercurial treatment. He was recently attacked with a very severe ulcer of the glans penis. Under syrup trifolium compound complete recovery took place.

CASE 6.—M. Pealca, age 25. Similar to No. 5. Commenced using syrup trifolium compound March 1, 1889, for erythematous syphilide (and papular syphilide covering almost the entire surface of the body) accompanied by extreme emaciation and debility, with perfect success.

DR. WM. PROTZMAN, of Lincoln, Nebraska, also reports two cases:

I was called to a woman 35 years of age, and her infant child six months old, both presenting unmistakable evidences of tertiary syphilis; in the latter the disease manifested itself immediately after birth. Both exhibited papular eruptions over the entire body similar to confluent small-pox. I ordered:

℞ Syrup Trifolium Comp., ℥ vi.
Iod. pot., ʒ ii.
Aqua, ℥ i.
M. Two teaspoonsful every three hours.

Also: Calomel, 1 gr.; sugar of milk, 3 grs. Every four hours.

After 24 hours the medicine was suspended, the husband being offended with my diagnosis, the specificity of which he denied; and I lost sight of the case until April 1st, 1889, when I was again sent for. I found the woman with nearly or quite one-third of her body covered with ulcers with dark crust; there was an ulcer on the calf of each leg nearly the size of an ordinary hand, that had to be kept moist continually with a solution of muriate of cocaine on account of severe pain. Apparently also there was a tendency to ulceration of the bowels, as there had been slight hæmorrhage, and consequently I considered the case somewhat desperate. I at once renewed the former prescription; and for the ulcers ordered:

Iodoform, ʒ ii.
Bismuth sub. carb., ℥ ss.
Vaselin, ℥ iss.
To be applied twice daily.

In three days' time decided relief had been obtained, and to-day the sores are all healed, but may be traced by their scars; also the throat symptoms that had been present have nearly disappeared, and she has gained about 20 pounds in flesh. The child received the same medicine in appropriate doses, and appears entirely well.

ERGOT IN UTERINE FIBROID.

DR WATSON, of Bangor, Me., reports:

Miss A. F., single, aged 39, came under my care July 21, 1880, suffering from the effects of a large uterine fibroid, having been sent home from Boston to die. After a few days trial by the mouth, which had to be abandoned because of vomiting, I commenced to use normal liquid ergot by hypodermic injections.

September 12th the measurements of tumor were: length $10\frac{3}{4}$, width $9\frac{1}{4}$, depth $7\frac{1}{2}$. The

first 25 injections were given by myself, when the patient was taught to operate upon herself. Twenty minims was the quantity used in each injection, which was generally given at night.

After three weeks the hemorrhage, which had existed almost continuously for four years, ceased, and the patient began to improve.

In November, 1881, examination showed a wonderful decrease in size of tumor, the measurements being: length 4 inches, width 3½ inches, depth 3 inches, and patient's health had so much improved that she returned to her millinery business in Boston.

For eight hundred and forty (840) days, without a single interruption, the injections continued, and wonderful to relate not only were there no abscesses formed, but not even once did soreness or inflammation arise, although the nates and thighs looked like a pepper box.

The patient regained her entire good health and strength, and the menopause was safely passed one year after ceasing the injections.

PEPSIN IN SCARLATINA.

Dr. J. Hoke, of Cordon, Ill., writing of pure scale pepsin, says:

We have had an epidemic of "scarlatina" this winter which gave a good opportunity of testing the virtues of pepsin in throat inflammations. The membrane which forms upon the intensely inflamed surface of the fauces, would disappear in a very short time, sometimes in an hour. I have never used a remedy that gave me so much satisfaction.

GLYCERIN SUPPOSITORIES IN CONSTIPATION.

H. Goodwin MacKaye, M. D. (Harv.), Newport, R. I.:

In cases where the local conditions in the rectum do not interdict their use, and where the constipation is from such a cause as to lead one to expect relief from applications made to the rectal portion of the gut, I have in more than twenty cases, thus far, obtained satisfactory results from glycerin suppositories, usually with little or no discomfort to the patient. In only one case was there much pain at the time of the movement, and this was undoubtedly due to a retroverted uterus, which has for years resisted the efforts of a variety of physicians who have sought to reduce it. The use of suppositories has been attended with equally pleasant results to physician and patient.

TWO CASES OF PHTHISIS.

Dr. Arthur Brownell, of Hastings, Neb., presents the clinical record of two cases of phthisis as follows:

Mrs. B., aged 28, was taken with cold in August last, with daily recurrence of chills and fever coming on at noon with profuse sweating; slight cough at first with mucous expectoration, that steadily increased; pain at night under left shoulder. Was treated homeopathically, her physician refusing to regulate the bowels, declaring they would take care of themselves.

Was called in August last, and found the patient in bed, still suffering severe pain in left shoulder; night sweats; bronchial tubes so blocked with fluid the râles could be heard several feet distant. Pulse 108; temperature 100°; respiration 28. No evidences of consolidation of right lung, though slight subcrepitant râles could be detected, that were intensified all through the opposite lung.

The chills quickly succumbed to medication, but sweating, pulse, and temperature did not yield.

Dec. 26 a consultation was held, the physicians agreeing there was no hope. At this time both lungs were found to be affected. The patient was unable to raise her head from the pillow. Temperature 104°, pulse 140, respiration 40. From Dec. 30 to Jan. 10 the patient had six hæmorrhages. From Jan. 10 the temperature began to decline, and spontaneous recovery gradually took place. To-day (April 26) she has no evidences of fever; pulse is normal; no night sweat; she is able to walk and ride about town each day; sleeps well; and has gained 20 pounds in flesh. Menstruation has returned, after having passed eight months. Examination shows no signs of disease in right lung, but a good-sized cavity in upper left lobe, and some consolidation over entire left lung.

Frank R., age 22; came Dec. 26, for treatment of a lachrymal fistula, and desired I should examine his lungs; said he had been coughing since June. No shortness of breath; no elevation of temperature; pulse normal; no sweating. Examination revealed slight dullness and bronchial breathing in upper left lobe, but on râles. Was given a sedative cough mixture; Jan. 3, returned for treatment of his eyes, and reported cough much better.

Jan. 17. Had three hæmorrhages during the night. Examination showed moist râles in upper left and middle lobes of right lung; temperature 100; pulse 90; respiration 26.

Jan. 20. Crepitant and subcrepitant râles were numerous in both lower lobes: temperature 101°; pulse 100; respiration 30.

Feb. 5. The area of consolidation had spread rapidly in both lungs; the temperature rose to 103–104 each day, and often three or four times per day; pulse 120; respiration 30–40; sweating profuse.

Feb. 26. Fever left patient but he had a cold sweat; respiration 40–60; pulse 110–120.

Feb. 28. Patient died at 4 A. M. He did not lose strength until the last day, but sat up in a chair as he could breath easier. Within three hours of the time he died he declared he was going to get well.

Correspondence.

BERLIN LETTER.

(From our Special Correspondent.)

Manœuvres of the Military Ambulance Corps —The "Sanitary Watches" of Berlin— Hygienic Police Regulations—Cumulative Action of Antipyrin—Tuberculosis of the Suprarenal Capsule — "Hypnotized" by Reller, the Munich Painter.

BERLIN, May 16, 1889.

At the second session of the Congress, it suddenly became known that BILLROTH celebrated that day his sixtieth birthday. His numerous friends and pupils honored the occasion by a sumptuous banquet at which the venerable surgeon narrated many interesting reminiscences of his surgical career. The following which your correspondent heard is both interesting and instructive:

A young woman suffered from an extensive suppuration of the right breast following shortly after confinement, and in spite of repeated incisions to drain off the pus no healing could be obtained. Another incision, carried rather deeply, caused extensive hemorrhage which neither compresses, nor applications of ice or styptics could check. The patient had grown comatose, excessively pale and almost pulseless, and failed to react to stimulation, while the bleeding continued to an alarming extent. BILLROTH, at that time at the beginning of his practice, had almost lost his presence of mind, and already thought of the necessity of rapidly amputating the breast and ligating the bleeding artery, when he resolved to make a trial of turpentine. The success was marvelous, the hæmorrhage stopped almost immediately on the application, and the patient soon recovered completely. The turpentine tampons were removed after 24 hours, when healthy granulations were found which in about three weeks completed the healing of the abscess.

Your correspondent witnessed a few days ago the highly interesting evolutions of the German Military Ambulance Corps. The scene was intended to represent the Corps in action, apparently wounded soldiers—the nature of their wounds being marked on little billets attached to their persons—being scattered all over the battle-field. The first step was the advance of the pioneer section of the Corps which effected the erection of an ambulance depot, rendering it at the same time sufficiently protected against hostile fire. These stations and everything connected with the ambulance and sanitary department carry the red cross in a white field to designate their neutral and inviolable character. Next came the gathering up and removal of the wounded to the ambulance depot. Stimulation to the fainting, styptics to the bleeding, and necessary temporary dressings were applied immediately before transportion, which, according to the nature of the injury, was effected at rapid, moderate, or slow gait. The discipline and precision of action was marvelous, and showed that perfection of drill characteristic of the German army. Physicians of rank and distinction were present, and examined critically the action and disposition of the Corps. The dressings in particular won the admiration of the superintending officers, and notwithstanding the rapidity and inconvenience of their application, they were without exception found to be correct and secure.

A similar, and at present more useful institution, viz, the "Sanitary Watchers" of Berlin, will also claim interest. In Germany, particularly in the metropolis, every city has provided for hundreds of medical aid stations—one in every four squares or so—where experienced medical services can be commanded in cases of emergency. This institution is a blessing, particularly at night, and is of equal service to the poor and the rich. The town pays for the medical officers, who are not at liberty to accept fees. The subject, I think, is of sufficient importance to engage the attention of the municipal guardians of American cities.

The city of Berlin, in many respects is exemplary in its hygienic care and dispositions, particularly in its regulations concerning buildings, streets, victuals, and last but not least, the patent medicine man. No house is allowed to be built but its plans have to pass, not only ordinary police inspection, but also a special "hygienic committee" which rejects, of course, everything which is not in accordance with the principles of hygiene. The streets of Berlin are the objects of admiration of all foreigners, and particularly of Detroitians, who speedily are awakened to the shameful and outrageous treatment to which they have been subjected for years. Berlin is paved almost exclusively with asphaltum and Belgian blocks, and the streets are always bright and clean-looking, regardless of weather. The inspection of victuals is so rigorous, that poisoning from trichinæ, or from decomposed meat, fish, or other eatables, is an exceedingly rare occurrence. Quite recently 24,000 pounds of fish, just from Denmark, were confiscated and destroyed. No milk wagon is allowed to enter but the specific gravity of the milk is ascertained. Regarding patent medicines, the Berlin police have resorted to very simple means to protect the public, viz., the absolute interdiction of patent medicine advertisements in newspapers and other public prints. It will be seen by the foregoing that Berliners are not permitted to care for themselves, as is the hazardous privilege of Americans, but the govern-

ment assumes the responsibility of all hygienic and sanitary precautions.

The researches of DR. CORNET regarding the propagation of tuberculosis, and in particular of the tubercle bacilli, have prompted the police department to at once issue definite and strict rules concerning the treatment and behavior of tubercular patients. All consumptives are henceforth to be treated in special wards, the same as diphtheria, small-pox, and other contagious disease patients, and they are provided with special spittoons, filled with an antiseptic solution, that are cleaned once a day with boiling water. No doubt some will laugh at the stringency of these regulations, but I think many, if not the majority, of physicians will heartily endorse and encourage their introduction elsewhere.

That antipyrin can exert a dangerous cumulative action like digitalis or arsenic, will probably be new to American readers. In the family of a well known practitioner of Marburg, three children suffering from whooping cough, received daily for about three weeks doses of antipyrin ranging from 7 to 18 grains, according to age. The drug, given in water sweetened with raspberry syrup, acted well, but suddenly arose after-effects previously unheard of. The eldest child, a perfectly healthy boy, was suddenly stricken with what was manifestly typical epilepsy; he had antipyrin rash with tonic and clonic convulsions, stertor, coma, profound somnolence, dilatation of the pupils, and a pulse of 68–72; also urinary incontinence, the secretion with a distinct odor of aceton. The convulsions continued for three davs, Cheyne-Stokes breathing having developed as an additional symptom. These gradually disappeared under the exhibition of calomel.

At the last meeting of the Berlin Medical Society, VIRCHOW exhibited an exceedingly rare specimen viz. a tubercular suprarenal capsule, taken from a laborer, aged 39. The kidney was hypertrophied to about ten times its normal size, and contained numerous cheesy and granular foci of the size of a cherry. The original parenchyma was wholly destroyed. Strangely, no bronze coloration of the skin developed. The autopsy revealed beside ulceration, cheesy hepatization of the lungs, and miliary tuberculosis of the testicles. Another specimen presented a similar change of the suprarenal capsule, due to syphilis.

At the same meeting arose an interesting discussion regarding the proper time to vaccinate infants. PROF. WOLF, who has paid particular attention to the subject, declared he could recommend the vaccination of infants a day or two after birth. The question whether the infant could stand this operation, he boldly answered in the affirmative. He dwelt on the great protection such early vaccination afforded, and said while he merely advocated an early vaccination ordinarily, it became absolutely imperative during small-pox epidemics.

A few days since I saw a handsome painting by KELLER, the Munich artist, which, for novelty, deserves a description. It represents a beautiful, pale woman in a state of catalepsy, and is taken from life. The profound sleep of death has settled on her brow; lips and eyes are rigidly closed; cheeks show no trace of circulation, and the jet-black hair presents an awful contrast to the deep pallor of her face. Her white arm is erected as a sign of warning, as it were. The body is apparently no longer sensitive to pain, and would not react on stimulation or torture. The painting is entitled "Hypnotized," and produces a truly weird effect.

REPORT ON THE MORTALITY AND VITAL STATISTICS OF THE UNITED STATES.

To the Medical Profession:

The various medical associations, and the medical profession, will be glad to learn that DR. JOHN S. BILLINGS, Surgeon U. S. Army, has consented to take charge of the report on the mortality and vital statistics of the United States as returned by the eleventh census.

As the United States has no system of registration of vital statistics, such as is relied upon by other civilized nations for the purpose of ascertaining the actual movement of population, our census affords the only opportunity of obtaining near an approximate estimate of the birth and death rates of much the larger part of the country, which is entirely unprovided with any satisfactory system of state and municipal registration.

In view of this, the Census Office, during the month of May this year, will issue to the medical profession throughout the country "Physician's Registers" for the purpose of obtaining more accurate returns of deaths than it is possible for the enumerators to make. It is earnestly hoped that physicians in every part of the country will co-operate with the Census Office in this important work. The record should be kept from June 1, 1889, to May 31, 1890. Nearly 26,000 of these registration books were filled up and returned to the office in 1880, and nearly all of them used for statistical purposes. It is hoped that double this number will be obtained for the eleventh census.

Physicians not receiving Registers can obtain them by sending their names and addresses to the Census Office, and with the Register an official envelope which requires no stamp will be provided for their return to Washington.

If all medical and surgical practitioners throughout the country will lend their aid, the mortality and vital statistics of the eleventh census will be more comprehensive and complete than they have ever been. Every physician should take personal pride in having this report as full and accurate as it is possible to make it.

It is hereby promised that all information obtained through this source shall be held strictly confidential.

ROBERT E. PORTER,
Superintendent of Census.

CENSUS OFFICE,
WASHINGTON, D.C., May 1, '89.

The Medical Age.

A SEMI-MONTHLY REVIEW OF MEDICINE.

B. W. PALMER, A. M., M. D., Editor.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

DETROIT, MICH., JUNE 10, 1889.

Editorial.

THE DOCTOR IN 1889.

BROUARDEL, the eloquent dean of the Paris faculty, and Professor of Legal Medicine, opened his lecture course with this as a topic, in which he rapidly sketched the physician of the past, comparing with him of to-day. The Paris correspondent of the N. Y. Medical Journal, outlines the discourse in something of the following manner:

Medical science—declared BROUARDEL—has become revolutionized in a way that has no parallel since the beginning of the world. In surgery great changes have been brought about by the microbian doctrine which has altogether changed the rôle of the medical man. Now, no matter what locality receives him, he becomes in a sense a public officer as well as private servant and general physician, as he has the power to check spreading epidemics, and in a way that has never before existed. Open almost any of the modern novels, and we will find hysteria, narcotism, dipsomania, nymphomania, and other diseases discussed: and the same is true also of the newspapers. Questions of legal medicine, hygiene, and medical matters of all kinds are considered public property, so that the physician is no longer judged merely by the families he attends, but instead by the whole world. The doctor of half a century since possessed but a small library, perhaps only the books he had used as student, and added to this only his clinical experience as acquired. Doubtless there were good physicians then, but their responsibility was limited to their patients solely; their word was law, and no one had the temerity to criticize the correctness of therapeutic measures employed.

To-day all is changed, there is scarce a hamlet so small that scientific publications do not reach it, or where scientific labors are not discussed and judged of with more or less impartiality, and even the sittings of great medical congresses analyzed. The modern patient asks his physician to prescribe for him the new drugs he reads of, such as antipyrin, strophantin, or sulfonal. The doctor may not know any more than the patient about these, and may never have given them a trial: and if he possesses an opinion thereon the editor of the patient's favorite journal may have an opposite one, and so he may be obliged to prescribe what in reality is ordered by someone else. Thus the authority of the medical man is much lessened in these modern times.

Certainly the doctor of old was treated with greater esteem, confidence, and affection; he was almost a member of each family that employed him. Now, however, the old family physician is a myth; but, on the other hand, the scientific man of medicine and hygiene has become almost one of the wheels of state, or at least of city power, and he is consulted in regard to the public health, so that his position is perhaps, after all, better than before. We live in a time when the public is supposed to be well educated; and certainly it desires to know the whys and wherefores of everything, so we must expect to have our diagnosis, prognosis and treatment discussed, and even criticised and disputed, by our patients. If one gives a certificate of lunacy, he may expect the press to allude to it as being bought and paid for; but, on the other hand, he can at times have the satisfaction of saving, by the suggestion of prophylactic measures, a whole community from the ravages of a fatal epidemic; and again, he may sometimes expose the errors of the lawyer who pleads for the condemnation of a fellow-being, when a wiser and more correct view of the matter would, from a medical standpoint, show there was no guilt. Other occasions present themselves wherein in many ways the physician can do good, and prove that the boasted knowledge of his critics is merely a superficial sham, and his more exact science overthrows their arguments. This will prove the superiority of the modern physician, but such superiority is attained only by hard work and study.

* * * * * * *

Apropos of the foregoing, we may express the opinion that, after all, the lot of the medical man of fifty years since was more enviable than now, though his social standing was less, and his knowledge in greatly decreasing ratio. Certainly he was not beset by the petty annoyances that obtain to-day, alluded to by PROF. BROUARDEL. Only recently, when called to a patient, the mother informed the writer that "calomel, rhubarb, alcohol, quinine, chloroform, arsenic, morphine, opium, and *kitty-cue*" must be barred in treatment; and another erudite smatterer, and reader of popular medical literature, insisted he needed "something that will have a direct sedative effect upon the cardiac plexus, and increase the proportion of gray nerve matter."

We will disclaim, however, for American fiction, the prurient sensationalism of the French school, for while our novelists discuss hysteria and maternal impressions, they have not yet so far advanced as to go into the minutiæ of childbirth and nymphomania, like EMILE ZOLA.

In the last half century, however, the physician has made rapid strides in scientific attainments, in social position, and in the general estimation of the public. The tendency of local government is to increase the power of sanitary boards, and thus the local influence and importance of the medical man is increased. Again, a few years since it was a comparatively rare occurrence in Great Britain for a country doctor to be made a magistrate, and it was almost an impossibility for one to obtain Parliamentary honors. To-day, however, both appointments are common, and medical men recognize their new position and responsibilities. In the recent dastardly attack upon MR. ERICHSEN by the ultra anti-vivisectionists under the lead of MR. BERNARD COLERIDGE, we find no less than five medical men occupying seats in the House of Commons, who replied thereto in a masterly and forcible manner; and but for these gentlemen a gross injustice would have been perpetrated on the strength of a deliberate falsehood.

THE PHYSICIAN IN FICTION.

In the last issue of the AGE, we remarked upon the fact that medical men, until within a very brief period, were deemed to possess no social standing, and consequently became legitimate targets for the wit, pleasantries, and travesties of authors. LAWRENCE STERNE, in *Tristam Shandy*, describes DR. SLOP—who is believed to be the caricature portrait of a celebrated antiquarian physician of York—as a "little squat, uncouth figure of about four feet and a half perpendicular height, with a breadth of back and sesquipedality of belly which might have done honor to a sergeant of the Life Guards." He enters the room after a ridiculous adventure that precipitates him into the mire, and disappears from the book after bedaubing a female servant with a cataplasm, in return receiving in his face the contents of a somewhat practical, though not commonly specified, chamber utensil. SMOLLET describes DRS. CRAB and POTION as villainous compounds of rogue, drunkard and shop keeper; both were well known practitioners at Glasgow.

From the beginning of the present century to the time of the Crimean war, a very different type of practitioner was introduced into fiction. He was not an exalted man by any manner of means In his student days a wild, rollicking fellow, given to practical jokes, neither very studious or very sober, and of the Bob. Sawyer type, he developed later into a kind-hearted, whist-playing, middle-class family physician, somewhat of a time-server and humbug, but honorable withal and ever ready to aid the needy, though seldom permitted the rôle of a hero. In MISS AUSTEN'S *Emma* we find the type in DR. PERRY, who is "bilious, and has not always time to take care of himself, for he is wanted all round the country." He does not confuse his patients with a variety of climatic recommendations. "PERRY," says MR. WOODHOUSE, "was a week at Cromer once, and he holds it to be the best of all sea-bathing places. A fine open sea, he says, and very fine air, and, by what I understand from him, you can get lodgings there quite away from the sea, a quarter of a mile off, very comfortable." That he was very attentive may be presumed: "Poor little Emma," says her father, "you were very bad with the measles—that is, you would have been bad but for PERRY'S great attention. He came four times a day for a week."

MR. CHILLIP in *David Copperfield* is much of the same class—a dapper, time and eye-serving little man: and so is the attendant of *Little Nell*, who, as he felt her pulse, "eyed the half-empty wineglass as though in profound abstraction, and prescribed a teaspoonful now and then of hot brandy and water," hot water to the feet, and roast fowl, all greatly to the delight of the landlady of the inn, who had these things prepared.

In the *John Pendennis*, of THACKERAY, we view a most creditable rural practitioner of the apothecary school, who, even if he does rap his teeth and smile artificially, and is laboriously polite to the butler and profusely civil to the lady's maid, is always a good husband, constant in his devotion to his mother and always honorable and prudent.

In CHAS. KINGSLEY'S *Two Years Ago*, published in 1857, we have in Dr. Thurnell, the first definite glimpse of the true scientific medical man, "kind-hearted and gallant." "Dr. Tom" wages an unpopular and unsuccessful crusade against sanitary defects in the little coast town where he resides; and when, in spite of his efforts, the cholera appears, he and his two medical associates fight the disease to the bitter end, visiting the ill, warning the healthy, and in all ways seeking to limit the ravages of the epidemic.

CHAS. READE'S favorite medical men are not, as a rule, savory or reputable. His estimate of the skillful practitioner is the unscientific pretender, deriving knowledge from ignorant savages, and he seems to imagine progress in therapeutics is like the invention of a new steam valve, merely the mechanical emanation of a theoretical brain.

GEORGE MACDONALD'S practitioner is by far

the best we have found, for he is invariably the same intelligent, upright, conscientious gentleman the author is, whose fault, if any, is a tendency to materialism in theological beliefs.

In the last decade, the medical man appears quite prominently in fiction, often as a hero, the fault being usually that the character is over-dressed. Quite a number of novels imbue the surgeon, always a man of thirty or thereabouts, with,—exclusive of medical knowledge—the combined wisdom of ages, the authors forgetting, apparently, that life is entirely too short for even a man of double the years to attain such perfection, even though a consummation devoutly to be wished. Indeed, there is an unwitting tendency — the tendency of ignorance—to make the young practitioner either a prig or a self-sufficient pedant, with more tongue than brains, devoid of respect for the opinions of others, and a decided inclination to snub his elders. Nevertheless, it is gratifying to see that the profession, from charlatans and buffoons have become examples of the highest and noblest type of humanity.

CHANGING DOCTORS.

One of the annoyances which every physician is sure at some time to experience, is to be told, (what perhaps he perfectly well knew and more than any one else deplored) that his patient has not been improving in his hands, and that the family had decided to try another doctor. Sometimes this is a keen disappointment and real sorrow to the physician. Had he not worked hard, met symptoms as they arose as well and promptly as any one could, and enjoined patience till the fever should turn? What though for fifteen long days the temperature rose to 104° every night, and fell to 103° in the morning, had he not assured the family and friends that this was the natural course of the disease, that no man could stop that fever till it *turned*, and that it would *turn* sometime? Had he not kept in check an obstinate diarrhœa, and allayed restlessness and insomnia, beside supporting the strength of his patient by a judicious exhibition of nutrients and stimulants? It was all of no avail, "Madam," or the "Captain," or somebody else was dissatisfied, and they had concluded that they would try "the new doctor." Nothing is said about settling the old account; Dr. A. is discharged, and Dr. B. steps in, and just about that time the fever turns, and Dr. B. gets the credit of a great cure.

It is no use to be disturbed by treatment of this kind, while the ignorance of the people remains what it is; more will always be expected of the physician than he can fulfill; nor does the ordinary layman understand much about the laws of disease, the regular course of fevers and acute affections generally, or appreciate the limitations of the physician who is sent for to cure the patient. Let Dr. A. only bide his time, and he will have his revenge.

For another reason patients sometimes change doctors. The attending physician has, in the estimation of the patient, been lacking in the care and attention which he should have bestowed. It is quite possible that the old lady or the young lady may have been too exacting; it may have been nothing but a little nervousness (which the doctor put down on his note *hysteria*) which was the matter with the patient. Nevertheless, he ought to have been more considerate; he ought to have respected his patient's notions, who really understood her own feelings better than any one else; he ought to have listened to all her complaints, instead of making a flying visit of only five minutes. So Dr. D. is sent for, who always is "*so* sympathetic;" who never stays less than half an hour in the sick room; who respects symptoms, always referring pains in the side to a "pleurisy," pains in the abdomen to a "diseased ovary," etc.; who meets every symptom with a drug, and gives at least six different kinds of medicine for a case of simple sore throat. Dr. D. is popular because he humors patients who demand a great deal of attention —albeit there is not much the matter with them—while other doctors have not the time or the patience to attend to all the complaints of such patients.

It is probable that most physicians err more or less in not giving sufficient attention to certain of their cases. A few interesting cases absorb their time and thought. The visit to Mrs. B. may have been too short, and one or two really important indications were not met. The pain in the side may have been a real pleurisy, which was overlooked in the hurry of the visit. Had the temperature, even, been taken, it would have indicated fever heat; this of itself might have suggested that this time the pain below the axilla was not purely nervous, to be allayed by a liniment, but inflammatory, and of serious significance. It may be difficult to be always wide awake, always alert (HOMER, it is said, sometimes nods), but the physician ought to have his powers of perception always active if he would not lose patients and practice by inattention.

The physician sometimes sees his patient pass into the hands of another doctor because he spoke too discouragingly of the case. He shook his head dubiously on the occasion of his last visit, and remarked to the anxious husband who asked how the sick woman was doing: "I fear the disease is destined to become chronic and incurable." This gloomy prognosis caused Dr. W. to be called in. People desire to be cheered and encouraged in times of sickness. They do not want to be told

the worst, often they do not want to be told the truth. The physician who comes into the sick room with a cheery word and a smile, and who always holds up the bright side (if there be any), is the man that is sure to please and be popular. The physician who always indicates to his friends or the patient his fears, who even, from intimate knowledge, states the probable results (provided these be gloomy), will be sure to fall behind in the professional race; if the patient thinks that his medical attendant has "given him up," he will be almost certain to try another doctor.

Often "changing doctors" is a real benefit to the patient, albeit his physician may have been most conscientious and skillful, but this is an aspect of the subject connected somewhat with the "mind cure," to which we have not time here to allude.

THE TAMPON AS A MEANS OF DIAGNOSIS IN CHRONIC ENDOMETRITIS.

Professor Schultze, of Jena, has published in the Centralblatt für Gynecologie an article in which he calls attention to a means of diagnosis, the value of which he has had occasion experimentally to test for many years. It consists in a tampon of absorbent cotton soaked in a solution of glycerite of tannin (the strength used is that of the Ph. B.), which is firmly applied to the vaginal cul-de-sac (previously cleansed by syringing), so as completely to cover the neck and os. The glycerin in the tampon absorbs all watery secretions from the parts with which it is in contact, and all purulent or mucous secretions are caught by it and retained. When, after 24 or 48 hours, the tampon is removed, a globule of crystalline mucous from the cervical canal is found on the part of the tampon which covered the cervix, provided that this was previously in a healthy condition. If the cervix is the seat of a catarrhal irritation above the external orifice, there will be found on the tampon, besides the crystalline globule before mentioned, more or less pus from the endometrium.

The pus which is collected at the uterine orifice may come from the neck or body of the womb; it is only the accessory elements which accompany it that can indicate its source. With regard to this Schultze says: "Often catarrhal affections of the cervix are accompanied by an irritation of the mucous membrane of the body of the uterus. The pus which flows from the canal of the cervix, is mixed with the product of the mucous secretion under the form of a dense and tenacious mucosity. The pus which comes from the cavity of the womb, is characterized by no such admixture. In a state of concomitant irritation of the mucosa of the cervix, and that of the uterine cavity, the secretion of the cervix is so much larger in quantity that the catarrh of the body cannot be recognized, notably when there are erosions or ectropion of the neck, as these secretions are mingled with those of the cavity of the uterus.

"The catarrh of the cervix is revealed by clear and characteristic symptoms: it is easy to recognize it by the aid of the speculum, and when such a condition cannot be detected, one has the right to conclude that the pus which is found on the tampon comes from the uterine cavity."

According to Schroeder, purulent corporeal endometritis is very rare. Schultze, on the other hand, regards it as quite frequent, but the quantity of pus secreted by the diseased uterine mucosa is small. Yet, however scanty may be the secretion, the very existence of this small amount is sufficiently indicative of an inflammation of the surface from which it emanates.

Schultze emphasizes the importance of the purulent secretion on the tampon—the obvious signs of follicular cervical endometritis being absent—which he regards as the distinctive sign of corporeal endometritis. Schroeder regards frequent profuse hæmorrhages, especially at the menstrual epoch, as the most characteristic pathognomonic sign. Schultze admits the great diagnostic value of hæmorrhages where they exist, but adds: "He who knows only hæmorrhagic endometritis, who only recognizes inflammation of the uterine mucosa when it is accompanied by metrorrhagia, will fail to recognize a great number of these affections which do not often cause hæmorrhages; in the initial stages, they can only be detected by means of the tampon."

After alluding to the unsatisfactory nature of exploration by means of the sound, and even of curetting as means of diagnosis, Schultze alludes to certain symptoms apart from hæmorrhage which should lead one to suspect the existence of endometritis. Many cases of dysmenorrhœa and sterility, dysmenorrhœa preceded by pains lasting several days, sterility, where the most careful palpation has revealed nothing abnormal, are the result of the endometritis in question. The dysmenorrhœa is characterized as "nervous"—there is nothing to object to this term, for all pain is "nervous." Narcotics and other anodynes, antipyrin, warm fomentations, relieve the pain for a time, but these remedies are only palliative. Here a correct diagnosis, which may be obtained by means of the tampon, may lead to a rational and curative treatment. Schultze affirms that he has witnessed cases of endometritis so rebellious and inveterate—though not accompanied by hæmorrhage, or abundant abnormal secretion—that they could only be cured by thorough curetting of the uterine mucosa. In the onset of the treatment of such cases, he would resort to phenicated intra-uterine injec-

tions, after having first dilated the cervix. This will sometimes of itself be sufficient to restore the uterine mucosa to a healthy state and stop the dysmenorrhœa. If after two menstrual periods, the tampon be again applied, not a particle of pus will be found on the cotton. Many a sterile woman will become pregnant after a simple treatment of this nature.

A great number of symptoms designated as hysterical, among which are, the so-called *nervous dyspepsia*, migrain, backache, asthmatic attacks, "nervous cough," depend on endometritis with a slight purulent discharge. SCHULTZE has often recognized the uterine origin of such complaints; the tampon has revealed an endometritis of the uterine cavity; a special treatment was instituted, and a cure obtained by methodical injections of phenic acid or sublimate solutions into the uterus, and repeated washings out of that organ, the cervix having been previously dilated. It is not the loss of substance resulting from a purulent secretion of a few cubic millimetres which so notably depresses the patients, but the impression which a local lesion like an endometritis makes on the nervous system; the stagnation of liquid secreted seems to play an essential rôle. Uterine catarrhs in which the secretion, even when very abundant, can flow out freely, do not seem much to influence the economy. The conditions of the uterine mucosa are less favorable for the discharge of a product of secretion than those of other mucous membranes, for there is not an abundance of liquid to favor the evacuation of the pus, and the swollen condition of the mucosa itself and the contraction of the internal os, tend to confine the pus in the cavity of the uterus.

SCHULTZE is confident that the stagnation of the purulent secretion causes certain endometrites to be chronic from the first, or easily renders chronic those that exist in women or girls that apply for treatment for chronic parametritis. One will almost always find by the aid of the tampon a purulent uterine secretion, even when the cervix is healthy. On inquiring into the history of these cases, one will be told that there had been for some time a slight leucorrhœal discharge which was neglected, dysmenorrhœic sufferings which had been treated as nervous, and which had for some time preceded the parametritis. The chronic parametritis, especially when posterior, produces either a shortening of Douglas' folds, and consequently a uterine torsion, or a pathological anteflexion or a fixation of the cervix, or even a relaxation of the ligaments of Douglas with a retroflexion, terminating in parametritis and oophoritis.

SCHULTZE affirms that his personal observations have led him to regard endometritis, especially that kind which has for special symptom an abundant secretion and hæmorrhages, as the starting point of a great number of inflammatory processes in the vicinity of the uterus. He has no doubt that simple uterine catarrh often leads to metritis and parametritis, and it is no less certain that after a posterior parametritis there is often uterine retroflexion.

As the most frequent cause of uterine catarrh is atmospheric infection, a prudent prophylaxis will as far as possible protect the uterus from this infection. The virginal organs are generally closed against infection; it is only during the menstrual period that there is danger. When, by reason of a ruptured perineum the vulva is left open, the germ of atmospheric infection has ready access to the uterus. For the prophylaxis and care of uterine catarrh, the greatest cleanliness of the genital organs is necessary; they ought to be protected from the influence of the air. It is for this reason that SCHULTZE recommends women to wear an aseptic pad and bandage during the menstrual period. When catarrh already exists, it is no less necessary to protect the genitals from contact with the air; antiseptic cotton should be worn over the vulva, and any laceration of the perineum should be repaired by an operation.

SCHULTZE, in closing, laments that when the chronic forms of corporeal endometritis, with their disastrous sequelæ, come before the notice of the physician, cure may be a matter of considerable difficulty. At any rate, one of the most important points of treatment is restoration of the diseased endometrium. The physician ought always, first of all, to be sure of his diagnosis; and here the tampon, used as above indicated, affords invaluable aid. He adds that, the more the physician avails himself of this aid, the more he will be satisfied of the causal nexus between simple catarrhal endometritis and some of the gravest gynæcological affections.

PRODUCTS RESULTING FROM THE DESTRUCTIVE DISTILLATION OF WOOD AND COAL.*

When wood is distilled in close vessels, numerous products are obtained, varying with the kind of wood used, the temperature in which the distillation is effected, and the care used in distillation. When dry hard woods are distilled, about 25 per cent. of charcoal is obtained, the liquid portion amounting to about 53 per cent., while the remainder, 22 per cent., is represented by waste products, such as carbon monoxide, carbon dioxide, etc.

The solids are, charcoal and inorganic salts. The liquids are: 1, aqueous, consisting of acetic,

* In the preparation of this summary, Remington's Pharmacy is followed; what is here given is mainly an abridgement of what is there presented on the subject.

formic, butyric, crotonic, propionic acids; acetone, methylic alcohol, methylamin, pyrocatechinete; 2, tarry substances containing tolnol, xylol, cumol, methol, phenol, cresol, naphthalin, paraffin, pyren, etc. The gases are: carbon dioxide, carbon monoxide, marsh gas, acetylen, ethylen, propen, etc. The most important products are: charcoal, tar, acetic acid, aceton, methylic alcohol, and creasote.

Charcoal is made by burning billets of wood, piled in a conical form, and covered with earth and sod to prevent the free access of air, several holes being left at the bottom, and one at the top, of the pile in order to produce a draught to commence the combustion. The wood is kindled at the bottom, and soon after ignition the hole at the top is closed, and when the wood is all ignited the holes at the bottom are stopped. The result is, that the volatile products are lost, carbon alone being left.

Acetic acid is made by subjecting oak wood, cut in small billets, to a carefully regulated heat, the temperature being much less than that necessary to produce charcoal.

Tar is a by-product in the manufacture of charcoal or acetic acid. By distilling tar we obtain creasote, which is a mixture, mainly, of the following phenols: Guiacol, creasol, methylcreasol, and phlorol. The lower oily layer which forms in the distillate, is treated with potassium carbonate to neutralize the acid present. Fractional distillation is also resorted to, with alternate treatment of the distillate with sulphuric acid and solution of potassa to separate impurities; the liquid is finally distilled, and the portion coming over between 205° C. (401° F.) and 220° C. (408° F.) is considered to be creasote. Nearly all the liquid sold for, and labeled as creasote in the market, is impure carbolic acid or coal tar creasote.

Methyl alcohol is another of the products of the dry distillation of wood. The watery liquid is separated from the tar, and distilled; then the first portion of the distillate is rectified over slacked lime to remove the acid, etc., and the product treated with sulphuric acid to remove tar, and lastly redistilled. It is a colorless limpid liquid, of a peculiar odor, resembling alcohol and acetic ether, and is a good solvent for volatile oil, fats, and many resins.

Among the products of the distillation of coal tar between the temperatures of 338° and 374° F., is carbolic acid. That portion of the heavy oil obtained by distilling coal tar which comes over between 327° F. and 374° F., is called "dead oil;" it contains carbolic and cresylic acids. When "dead oil" is redistilled, the product is crude carbolic acid; if the latter be redistilled at the temperature of 365° F., nearly pure and crystallized carbolic acid (phenol) will come over. From carbolic acid treated with soda, constituting a sodium phenol, salicylic acid is obtained, the sodium phenol being treated with carbon dioxide. Concentrated caustic soda solution is evaporated with the corresponding amount of sodium phenol, to a dry powder; this is then heated to 212° F. with carbon dioxide. The temperature is raised to 428° F. In the retort, the half of the phenol used, remains as sodium salicylate, while the other half has distilled over unchanged. The reaction is as follows:

$$\underset{\text{(Sodium phenol.)}}{2NaC_6H_5O} + CO^2 = \underset{\text{(Phenol.)}}{C_6H_6O} + \underset{\text{(Sodium salicylate.)}}{Na_2C_7H_4O_3}$$

The sodium salt thus obtained is the source of the salicylate of sodium and the salicylic acid of commerce.

Among the unofficial products of the destructive distillation of coal tar, we have the following: Anelin, antipyrin, benzol, chenolin, rosin, rosanilin (fuchsin), ichthyol, naphthalin, naphthol, pheno-phthatein, phthetic acid, picric acid, resorcin, rosolic acid, sulpho-phenic acid, tropæolin, and xylol.

SULPHIDE OF CALCIUM IN DISEASES OF CHILDREN.

Dr. H. Valentine Knaggs writes to the Archives of Pediatrics in praise of sulphide of calcium as a remedy for infantile convulsions and other nervous diseases.

He claims brilliant results from this medicament when given for the convulsions which occur from teething, falls on the head, meningitis, and even acute tuberculosis. In these cases which are often so intractable under ordinary methods of treatment, sulphide of calcium may effect a cure after other means have failed.

Dr. Knaggs regards calcium sulphide as a much more powerful preparation than has ordinarily been supposed, consequently the dose must be small. The dose will vary from one-eighth to one-twentieth of a grain every hour, or less frequently, according to the severity of the case. The drug must be freshly prepared and active, as it soon loses its virtues and becomes inert. It may be given with ordinary sugar, or sugar of milk. Antipyrin may be sometimes alternated with the sulphide to advantage.

The method which Dr. Knaggs recommends to be adopted in a case of threatened tubercular meningitis, consists in cautiously administering the sulphide of calcium in suitable doses, and in holding over antipyrin, should the sulphide prove to be too depressing. With care in giving just sufficient of this drug to act beneficially on the diseased brain, the antipyrin will be seldom called for. The patient ought also to be kept in a continuous atmosphere of eucalyptus steam from a drachm of the oil placed in a bronchitis kettle, or by the

occasional use of a small hand-spray charged with the tincture. He reports five cases of tubercular meningitis where he thinks that he saved the lives of the little patients by the use of the sulphide.

In one case, a child aged two and a half years, the sulphide of calcium was given hourly in the dose of one-eighth of a grain. From the moment that the child took this remedy, the convulsions ceased entirely. The drug was continued about a week in hourly doses till a slight diarrhœa ensued. Then three powders a day were given for a fortnight. The patient made a good recovery.

In another case, a baby aged twelve months, the pathognomonic symptoms of tubercular meningitis seemed certainly to be present. For two days one-twentieth of a grain of the sulphide of calcium was given hourly, when, as the sulphide seemed to be exerting a depressing effect on the nervous system, it was discontinued, and antipyrin in one-grain doses ordered; this was afterwards alternated with the sulphide of calcium, a dose of each being given alternately every two hours. The infant made a good recovery.

Dr. Knaggs concludes that there is sufficient testimony that in the sulphide of calcium we have a valuable addition to our list of remedial agents for the relief and cure of a class of diseases generally regarded as fatal in children.

PHENACETIN.

Discovered in 1887 by Kast and Huisburg the phenacetins are three in number with the prefix respectively of *ortho*, *meta* and *para*;—the general formula is as follows: $C^{10}H^{13}O^2N$.

The first and last of these isomeric products are medicinal: *orthophenacetin* and *paraphenacetin*.

Phenacetin has been the subject of a thorough clinical study by Bamberger, and the results which he has obtained have been confirmed by numerous other clinical experimenters, notably Lepine and Dujardin-Beaumetz.

With five grains of the phenacetin, there is produced in states of pyrexia, a fall of the temperature of from two to three degrees. Employed in typhoid fever, acute rheumatism, petechial typhus, pneumonia, phthisis pulmonalis, pleurisy, erysipelas of the face, this medicament seems to act favorably as an antipyretic, while in no way shortening the course of the fever. In acute rheumatism, it seems to be inferior to antipyrin, but as an analgesic it has given good results in headaches, migrains, neuralgias of the trigeminus, sciatica, and the lightning pains of locomotor ataxia. A dose of ten grains ordinarily suffices to allay pains; if this is not sufficient, another dose of five or ten grains may be with safety administered.

Experiments made by Dujardin-Beaumetz in Cochin Hospital the past year, have shown that the phenacetins possess great medicinal value, are but little toxic, and have all the properties of antipyrin, while being superior to the latter. He administers it in the dose of 7½ grains morning and evening; it being a matter of indifference whether ortho or paraphenacetin be chosen.

Phenacetin is but slightly soluble; may be given in capsules or tablets, each containing seven grains. There need be no fear of any toxic action; Beaumetz has administered to animals as much as three grammes per kilogramme of the weight of the animal without causing death. Enormous doses, amounting in all to nearly two ounces, were given in the course of a little more than a fortnight to a patient suffering from tetanus, and recovery was attributed to the free use of the medicament. There is another advantage which this medicament possesses over antipyrin and acetanilid, in being perfectly tolerated by the stomach. Its price is less than that of antipyrin at the same time it is more powerful in the same dose; in fact, one gram of phenacetin produces an effect fully equal to that of two grams of antipyrin.

Prof. Depine has now employed phenacetin for several months as a "nervine medicament," with satisfactory results, and prefers it to antipyrin and acetanilid. Gaiffe has used with advantage in the vomiting of phthisis, also in nervous polyuria. It has thus far had no effect in paralysis agitans and chorea, but markedly benefits whooping cough.

Mœller, who has made much use of phenacetin in typhoid fever, states that it does not produce a durable and constant apyrexia; patients soon get accustomed to it, and, moreover, it has no effect on the course of the disease. This clinical authority prefers antipyrin and antifebrin as antipyretics, but finds phenacetin far superior as an analgesic.

GONORRHŒA CURE EXTRAORDINARY.

While pathologists are puzzling their heads over microbes and minute organisms in general, and wrangling over the gonococcus in particular, the Mahomedan hakims of the Punjab and "Vale of Cashmir" have solved the matter of treatment of gonorrhœa to their apparent satisfaction. The simplicity of the method is refreshing. It consists, first in bathing the afflicted member with the juice of the watermelon, and next tying it up, scrotum and all, in a poultice of mashed pulp of the same fruit.

Should this fail, however, a sugar melon is next procured, enclosed in a coating of dough,

and baked, and while warm a hole made therein, *per quod foramen penis erectus inserendus et semen virile injeciendum esset.*

Book Notices.

Diphtheria and Croup. By Dr. C. E. Billington. Published by Wm. Wood & Co., New York. Cloth; 8 mo.; pp. 325.

The first named title claims 259 pages of the work, the balance being given to *Intubation* by Dr. Jos. O'Dwyer. The author states that "to have made this an exhaustive treatise, would have been impossible in view of the great variety of aspects which have been assumed by the disease and its complications in occasional epidemics and individual cases, the wide diversity of the views which have been entertained as to its pathology, and of agents and methods which have been employed in its treatment, the resulting vastness of the literature relating to it, and the limitations of the time and space at my disposal."

In spite of all this somewhat queer disclaimer, the book, which is more or less of a compilation embodying little that is actually new, is interesting and really valuable, in that a vast amount of information and material has been condensed into readable form, convenient for reference. The work has been carefully and conscientiously done, and deserves a wide circle of readers.

Atlas of Venereal and Skin Diseases By Prince A. Morrow, A. M., M. D. Wm. Wood & Co., Publishers, New York. 20 pp.; folio. Price, $2.00

The thirteenth fasiculus of this work contains five handsome lithograph plates illustrating *elephantiasis* of the leg and scrotum; *leucoderma; alopecia areata; keloid; fibroma; xanthelasma; rhinoscleroma;* and *xeroderma pigmentosum.*

The general appearance is good, the text being brief and pointed; the plates, the best we have yet seen in this class of work. Nevertheless, the value of these atlases is problematical, since the illustrations are taken from extreme cases such as are rarely encountered by the general practitioner; further, the coloring invariably is overdone.

Elements of Histology. By E. Klein, M. D., F. R. S. 12-mo. 368 pages. Lea Brothers & Co., Philadelphia.

This is one of the English "Student's Manuals" issued in Trans-Atlantic form in red muslin binding, handy for the pocket, the laboratory or the dissecting room. It is the most complete and concise work of the kind that has yet emanated from the press, and is invaluable to the active, as well as the embryo, practitioner. The illustrations are vastly superior to those in most works of this class, more attention being paid to clearness and accuracy than elaborate line work.

Immunity through Leucomaines. By Eusebio Güell Bacigalupi: Translated by R. F. Rafael, M. D. N. Y. J. H. Vail & Co., Pub. 170 pp.

The title sufficiently indicates the intended character of the book, which however is comparatively valueless, the argument being entirely of positive character. To say the least the conclusions are prematurely drawn, and based upon indefinite assumptions instead of facts. Thirty pages are given to extracts commendatory of the book from the lay press, which are quoted in defense of the position of the author.

Extra Uterine Pregnancy. Published by W. J. Dornan, Philadelphia. Cloth; 8 mo.; pp. 70. Price, 75 cents.

This is a discussion participated in by Drs. Franklin Townsend, Jos. Price, E. Montgomery, W. H. Wathen, J. M. Baldy, Jno. B. Deaver, L. S. McMurtry, and A. Van der Veer; and is reprinted from the Transactions of the American Association of Gynæcologists for 1888. There is added also a review (from Buffalo Med. and Surg. Journal) of Tait's Ectopic Pregnancy and Pelvic Hæmatocele.

A Guide to Therapeutics. By Robert Farquharson; edited by Frank Woodbury. 12-mo. 600 pp. Lea Brothers & Co., Philadelphia.

A most excellent and handy compendium, well written and well edited. For ready and accurate reference it cannot be surpassed.

Electricity in Facial Blemishes. By Plym S. Hayes, A. M., M. D. Chicago: W. T. Keener, Pub.; pp. 125.

A handy little work, which however offers nothing radically new.

Notes and News.

A Case of Antifebrin Poisoning.—Dr. E. Fuerth, reports a new case of antifebrin poisoning (Wiener Med. Presse, 1889, No. 16). At the instance of a friend, a girl took 4 gr. of the remedy in the form of effervescent powder, in violent hemicrania; there soon followed nausea, eructation, vomiting, especially of the milk which had been promptly administered as an antidote. The patient became unconscious, and the other usual pathognostic symptoms ensued, such as icy coldness of the skin, feebler and very much more frequent pulse, deep blue coloring, especially of the face feet and hands, with accompanying evidence of cerebral irritation, dilated pupils, spasms, gnashing of the teeth, delirium and finally coma, from which she awoke after the lapse of three hours. Consciousness returned eight hours after the poisoning, and the patient recovered slowly. The blue coloration of the skin lasted for 24 hours; after two days the patient could leave her bed.

Jumbul in Diabetes.—PROF. LANPHEAR recently showed the class at the University Medical College a case of diabetes mellitus of two years' standing, where the amount of urine was diminished from 512 ounces in 24 hours to 80 ounces, and the specific gravity reduced from 1.042 to 1.030, from the use of fluid extract of syzygium jambolanum. The drug was kindly furnished by Parke, Davis & Co., for experiment in the case. The initial dose was five drops after each meal, increased one drop every second day until ten drops were taken. The happy result mentioned was the result of only three week's treatment, during which time the patient gained twelve pounds in weight. Therefore the prognosis was considered as fair, although the case, having resisted diet and all other forms of treatment, was regarded as hopeless.—*Kansas City Medical Index*, May, 1889.

Viscum Flavescens, an Oxytoxic.—DR. DANIEL GRAY, before the Ogeechie Medical Association of Alabama, demonstrated that a tincture prepared from the leaves of *viscum flavescens* (Pursh.) is an oxytoxic of great value. A number of cases in which this effect was obtained were cited, in two of which at least, it exhibited all the good properties of ergot. His first attention was called to this use of the mistletoe, by the fact that it is employed by stock-breeders to secure the expulsion of retained secundines in cows. He further declared that the activity of the growth appeared to depend upon the tree to which it was parasitic, the best medicinal mistletoe being that found on the persimmon.

Improved Hypodermic Case.—We have received a very handsomely plated metal hypodermic case, of a flattened-elliptical shape suited for carrying in the vest or coat pocket.* It is in all respects the best instrument of the kind we have ever seen. In addition to improvements in the piston rod, needles, etc., it also contains extra wires for cleaning purposes, and six tubes of hypodermic tablets of 25 each. They furnish these cases *without syringes*, if desired. The syringes they supply with these cases, however, are of the best approved construction, and will be good investments, even to those who already have hypodermic syringes. —*Toledo Med. and Surg. Reporter*, June, 1889.

The Czar's Physicians.—The health of the Czar is well looked after, if we may judge from the large staff of physicians and surgeons which is attached to the Russian court. The following comprises the list of the medical department: Three consulting physicians; ten honorary physicians; two surgeons, each of whom is paid; and three honorary surgeons; three accoucheurs, each of whom is paid: two ophthalmic surgeons; one physician for diseases of children; four practitioners for attendance upon the household, the posts of which are honorary; and lastly, one dentist.—*Medical Press and Circular.*

A Prize Essay.—The Belgian Academy of Sciences has offered a prize of 500 francs for an essay communicating, from deductions based on personal and original investigations, a precise and easy method for estimating alkaloids in medicaments and pharmaceutical preparations. Memoirs must be sent in before December 15, 1889, and may be written either in French, Latin, or Flemish.

Surgical Treatment of Epilepsy.—DR. BARGEZ has ligated the vertebral arteries in three cases of epilepsy, in two on one side, and in the other on both sides. One patient has had no attacks since the operation, the others have had slight attacks.—*Deutsche Medic. Wochenschrift.*

The Prevention of Accidents.—An exhibition of means designed for the prevention of accidents is just now open in Berlin. The object of the exhibition is to form a collection of all such measures as are actually undertaken or proposed for the prevention of accidents in factories and other industrial establishments.

Pate de Foie Gras.—According to M. MOULE, domestic fowls—chickens, geese, and ducks—are frequent sufferers from tuberculosis, the disease commonly involving the abdominal organs. "*Paté de foié gras*," he says, is oftentimes almost a pure culture of tubercle bacilli.

Edward L. Keyes has resigned his professorship of Genito-Urinary Surgery, Syphilography and Dermatology in Bellevue Hospital Medical College, and DR. SAMUEL ALEXANDER has been appointed to fill the vacancy.

She: "Have you seen the chimpanzees up at the park?" He: "No; are they in bloom?" She: "Are what in bloom?" He: "Why, the Jim Pansies."—*Fun.*

Dr. William A. Hammond will take possession of his new suburban residence near Washington next fall.

Roosevelt Hospital, New York, has been bequeathed $350,000 to build and endow a Surgical Operating Theatre.

The Eiffel Tower of Paris will have several laboratories devoted to astronomy and the scientific study of the atmosphere and clouds.

* Made by Parke, Davis & Co.

Therapeutic Brevities.

Bromide of Ethyl as an Anæsthetic.—Bromide of ethyl, C_2H_5Br., which was recommended as an anæsthetic in dental practice by Herr Schneider, dentist to the German Emperor, at the Munich Odontological Congress held last year, has since that time been employed in a large number of cases by Dr. Frederich Herz, a dental surgeon in Vienna, who contributes an interesting paper on the subject to the Internationale Klinische Rundschau of April 14th. He uses a simple inhaler like that of Skinner, with some cotton-wool inserted to soak up the bromide of ethyl, of which he pours in about half an ounce at first, adding a little more afterwards if required. In some cases less than seventy-five grains proved sufficient. Anæsthesia came on rapidly, usually in one or two minutes, and then was sufficient for from five to eight extractions. The patients took the bromide far better than chloroform or ether, neither struggling so much nor presenting any unpleasant symptoms after waking up. Some patients who had previously suffered a good deal from ether, expressed themselves as highly delighted with the new drug. Dr. Herz has not tried the bromide on young children, but he thinks it will be found very suitable for them, in consequence of its not unpleasant taste and the simplicity of the apparatus required. How far bromide of ethyl would be applicable in important operations cannot as yet be stated. Blum, of Bamberg, however, repeated the inhalation at a single sitting, and was enabled to extract thirty-two very firmly set roots. It may be mentioned that, according to Lewin, bromide of ethyl does not induce paralysis of the heart.

A New Method of Artificial Feeding for Infants.—Escherich (Münchener medicinische Wochenschrift, Nos. 13 and 14, 1889 finds the usual methods of artificial feeding for infants defective, because too great stress is laid upon the percentage of nourishment contained in a given mixture, to the neglect of the actual amount of nourishment obtained by the child.

As a basis of computation he takes an estimate of the average weight at birth at between seven and eight pounds; he tabulates the normal gain during the first year and calculates the amount of nourishment appropriate for each increment. Beginning with eight meals in twenty-four hours of one and a half ounces each, the child receives six meals at nine months, each six ounces; at ten months a mixed diet, embracing solids, is allowed. The mixture which Escherich prefers is sterilized cow's milk; to each four ounces a large teaspoonful of malt extract is added, because malt is less liable to fermentation than milk or cane sugar This is diluted with sterilized water in progressively diminished quantities; he supplies fat by adding to the water a preparation of almond meal, one teaspoonful to four ounces of water. He believes that the usual methods of feeding result in the ingestion of much more food than is assimilated.

Tetanus Treated by Quiet and Rest.—Prof. Rienzi, of Naples, records several cases of tetanus successfully treated by this method. The patient is made to understand that safety lies in absolute quiet and rest, mental as well as physical. He is placed is a dark room removed from all noise, his ears, as a further precaution being filled with cotton and sealed with wax; further the room is heavily carpeted in order to relieve the noise of stepping about, and the nurse in charge, who enters every quarter hour, though provided with a well shaded lantern, is expected to employ the sense of touch rather than sight to reach the patient's couch. In order to avoid mastication, liquid food only is employed—milk, soft-boiled eggs in beef-tea, beef essence, etc., constipation is not interfered with, but is promoted by the exhibition of appropriate remedies if necessary. Numerous Italian physicians attest the value of the treatment, though it in no way shortens the disease; under it the paroxysms grow milder, and finally cease altogether.

Formulæ for the Treatment of Chilblains.—

℞ Chlorid. meth., ʒ ij.
Cocain hydrochlor., gr. viij.
Lin. camp. co., ʒ iij.
Lin. saponis, ʒ v.
M.

℞ Lin. belladonnæ, ʒ ij.
Lin. aconiti, ʒ j.
Acidi carbolici, ♏vj.
Collod. flex., ad ℥ j.
M.

℞ Ol. ricini, Collod. flex., Spt. terebith, } āā ʒ iv.
M.

℞ Spirit. camph., Tinct. opii, } āā ʒ ij.
Acid. carbol., gr. xl.
Spir. vini, ʒ iv.
Aquæ, ʒ iv.
M.

Digestive Tablets.—L'Abeille Médicale, of April 27, 1889, gives the two following "antifermentative" formulæ as prescribed by Dr. Dujardin-Beaumetz:

I.

℞ Salicylate of bismuth, Magnesia, Bicarbonate of soda, } āā ʒ ijss.
Make into thirty powders or tablets.

II.

℞ Salicylate of bismuth, Naphthol, Magnesia, } āā ʒ ijss.
Make into thirty powders or tablets.

Dose: One tablet at breakfast and one at dinner. They are especially valuable in dilatation of the stomach caused by fermentation. —*Med. News.*

Glycerin as a Purgative—Its Action and Indications.—Dr. Karl Ullmann (Ctrlbl. f. die ges. Ther., August 1888) contributes an exhaustive article on this subject, which already, in the short space of a year, can boast of quite an extensive literature. The author favors the theory that the local purgative action of glycerin is due

to its power of abstracting water from the tissues, and in this way irritating the rectal mucous membrane and causing contraction of the muscles of the rectum. Enemata of glycerin are serviceable where, for any reason, a rapid evacuation of the lower part of the bowel is indicated. They are of no use when the accumulation of fæces is in the upper part of the large bowel, or in the small intestines. They are contra-indicated in ulcerative conditions of the rectum, and in painful inflammatory affections of neighboring parts. In habitual constipation they can not replace dietetic regimen, massage of the bowels, and well known aperients.

Treatment of Tubercular Processes with Balsam of Peru.—Prof. Albert, in a lecture delivered before a medical society in Munich, spoke most highly of the efficacy of balsam of Peru as an application after operations for local tuberculosis. In all cases in which it was applied to the wound, healing was effected by first intention, and the tuberculous process was checked. In two cases, however, the action of the drug on the kidneys was decidedly unfavorable, it producing nephritis. Albert lays great weight upon using only the pure drug; many impure articles, he says, are brought into commerce under the same name.—*Münchener med. Wochenschrift*, April 16, 1889.

A Hitherto Unobserved Effect of the Salicylates.—In the case of a middle-aged lady, after several doses of 1-2 gms. sodium salicylate, administered at intervals of 2 hours marked contraction of the pupils ensued, with loss of reaction to light. At the same time rumbling in the ears, deafness, and headache, were experienced. The myosis ensued within eight hours after the beginning of treatment, and disappeared only 30 hours after the taking of the last dose.—*The Practitioner*, 1889, Jan. p. 17.

Local Application of Pepsin.—Dr. M. B. Douglas has found pepsin a most valuable application for indolent ulcers. It gives a healthy appearance to the sore, and promotes rapid healing. He uses it with lanolin in the following combination:

℞ Pepsin, 48 grains.
Lanolin, ʒ jv.
M.

—*Revue de Thér. Méd.-chir.*, May 1, 1889.

Removal of Warts by the Internal Use of Arsenic.—Mr. B. G. Pullin, of Sidmuth (Brit. Med.-Chir. Jour.), gives the history of a number of cases in which he had cured warts on the hands by the use of small doses of arsenic, from one to three minims of Fowler's solution, twice a day. He states that in every instance the cure has been rapid and complete.

Ether Locally as a Remedy in Chloroform Anæsthesia.—As an animating remedy in chloroform asphyxia, the pouring of ether upon the stomach has been recommended: the cold, thus produced, is said to give rise at once to deep respirations.—*Muenchn. Med. Wochenschr.* 1889, 15.

Quassia in Drunkenness.—A half-ounce of ground quassia is steeped in an ounce of acetic acid, adding a pint of water before steeping. A teaspoonful in a little water should be taken every time the liquor thirst is felt. It satisfies the craving, and produces a feeling of stimulation and strength.

The Treatment of Chapped Nipples.—At University College Hospital, London, the favorite remedy for chapped and sore nipples is glycerin of tannin and sulphurous acid, each half an ounce, with one ounce of water.—*The British Med. Journal*, May 11, 1889.

The Inhalation of Menthol has been recommended of late as a remedy for asthma, having been found useful in all attacks where it was given, and seems worthy of more extended trials. A 20-per-solution in olive oil was used.

Piper Methysticum in Toothache.—Almato (Rev. Hom. Belge.) finds piper methysticum especially indicated where the excessive toothache is accompanied by severe earache, and gives us verifications in some cases.

Medical Progress.

THE TREATMENT OF ERYSIPELAS.—Dr. Leonard Webber, in a paper read before the German Medical Society of New York, May 6th, 1889, after discussing the comparative inutility of the methods usually employed for treating erysipelas, advised the use of multiple incisions, which method he described as follows:

Remembering the favorable results which were obtained in Volkmann's clinic in Halle, by multiple cutaneous incisions, in cases of progressive phlegmon, it occurred to Professor Kraske, in Freiburg, to try a similar mode of treatment for erysipelas, and in 1886 he treated three cases successfully in the following way: After thorough cleansing and disinfecting the inflamed surface, he made numerous small incisions, just deep enough to reach the cutis, about one centimetre in length, and from fifteen to twenty to the square inch. This number increased toward the border of the erysipelatous area, reaching into the sound tissues also. The whole surface was then irrigated with a five per cent. solution of carbolic acid, and by gentle pressure the oozing of bloody serum from the tissues encouraged as much as possible. The after-treatment consisted in the application of dressings soaked in a two per cent. solution of carbolic acid, and changed once or twice a day. In two of the cases a single operation was sufficient to arrest the disease, in the third a repetition of it was necessary to effect a cure. Riedel followed Kraske with a series of eleven cases, in which he was successful, with a somewhat modified procedure. He limited his incisions to the border-line of the erysipelatous area, into which he made very fine incisions in great number, which were from two to four centimetres long, one crossing the other at an angle of about forty-five degrees, thereby encircling the whole with a framework of cuts. For his dressings he used a one one-thousandth solu-

tion of corrosive sublimate, to be renewed three times daily. His cases, like Kraske's, got well within three or four days, and in two of them only was it necessary to repeat the operation. In most of the cases the erysipelatous process was arrested forthwith, and the fever, etc., ceased on the second day of the treatment.

In a paper read before the Medical Society of Hamburg, a short time ago, Dr. C. Lauenstein communicated his observations on the subject. In his first case he himself was the sufferer, with a severe attack of erysipelas of the arm. He was operated upon by one of his friends after Riedel's method, and the result was all that could be desired. In his second case, Lauenstein observed that the incised sound portions of the skin swelled considerably and turned red, though the erysipelas did not spread beyond them. In his next two cases he therefore laid the incisions in the sound tissues of the border alone, thereby preventing the knife from coming in contact with the infected parts. The result was just as prompt.

The majority of the cases reported by these authors were severe, progressive, and associated with high fever and considerable constitutional disturbance. In some of them the fever continued even after the operation, and the erysipelatous process went beyond the surgical barriers, but its power was not the same as before. The inflammatory processes and suppurations, occasionally associated with erysipelas, are not influenced by this operation, and have to be treated in the usual way.

The surgical skill required in carrying out this treatment is simple enough to allow any practitioner to do the operation who knows how to handle a knife. Moreover, it would not be difficult for any instrument-maker to make a little instrument with about five very small and sharp little blades, one centimetre apart from each other, with which to operate. Such instrument would both facilitate and expedite the work. Insignificant as the operation is, it would scarcely be convenient, or even possible, to do it without an anæsthetic, on account of its painfulness. In a considerable number of severe cases of erysipelas lives have been saved by it which might otherwise have been lost. To be sure, Wölfler's easy method will be preferable, if further experience should prove it as good as Kraske's; but, so far as I know, his experience has not been confirmed as yet by others in the severer class of cases.

THERAPEUTIC TREATMENT OF THE HAIR.—Not only in alopecia pityrodes, but also in area Celsi, as well as in any pathologic loss of hair, the anti-parisitic theory has been confirmed. Dr. Lassar gives the following prescriptions:

The capillary surface has to be soaped for six or eight weeks every day by a well experienced hand, later less frequently, during a time of ten minutes. The best method will be by means of a tar soap, containing an abundance of tar. After thorough soaping of the scalp, the soap is washed off, and after slight drying, the head is rubbed with:

℞ Sol. hydr. bichlor., 0.5-150.00
Glycerini, } ää 50.00
Spirit cologn., }
M.—S.

Then rubbed to dryness with absolute alcohol with addition of one-half per cent. naphthol, and then:

℞ Acid. salicyl., 2.00
Tinct. benz., 3.00
Ol. pedum tauri ad, 100.00
M.—S.

Rubbing it most abundantly in the skin. Of very apparent advantage is the following pomade:

℞ Acid carbol., 1.00
Sulph. sublim., 5.00
Adip. collieguini ad, 50.00
M. f. ung. adde ol. berg., gtt. x.

A favorable effect is obtained also by prudent application of turpentin, either in the shape of oil, mixed in the beginning with equal parts of some indifferent oil, or in a mixture of attenuated alcohol. Pilocarpin, recommended by Schmitz, and other perspiratory treatments were applied successfully; also in alcohol or pomatum:

℞ Pilocarpin muriat., 2.00
Vaselini flav., 20.00
Lanolini, 80.00
Ol. lavand., gutt. xxv.

Pilocarpin acts favorably on the growth of hair.

It is highly probable that in the addition of Peruvian balsam it is exclusively the antiparasitic element that comes into activity, and the following formula presents a commendable hair-ointment:

℞ Pilocarpin muriat., 2.00
Chinin. muriat., 4.00
Sulph. præcip, 10.00
Balsam Peruv., 20.00
Medull. bovin. ad, 100.00

Finally, tar, in the shape of tar-baths, is to be mentioned for all cases of violent progression, as well as chrysarobin.—L. Hoffmann, Berlin, in the *Therapeut. Monatsh.*

A NEW TREATMENT OF ACNE.*—The successful treatment of acne—especially acne comedones and acne rosacea—always appears to be of some considerable difficulty. In addition to the ordinary treatment of acne by careful attention to diet, the use of chalybeates and vegetable acids, and sulphate of lime, and applications of sulphur and zinc, I have recently obtained some very good results in a number of cases by using a vaporizer or steam producer, to which can be added the drug for the purpose of treatment. This process of steaming the skin of the face is not only very beneficial to the complexion itself, but speedily removes impurities and black specks, such as are seen in acne comedones, and the redness of acne rosacea. This handy little instrument or vaporizer consists of a small kettle set in a framework, with a non-conducting handle, over a spirit lamp; the vaporizer pro-

* By James Startin, Senior Surgeon to the London Skin Hospital, Consulting Surgeon to the Sheffield Public Hospital for Skin Diseases, in London Lancet.

jects from the kettle like an ordinary scent vaporizer, the end of which tube is inserted into the glass measure attached to the frame containing the drug required to be used to the skin. The whole apparatus is much the same as the carbolic spray producer now used, only smaller. Its beneficial action consists in its power to assist the functions of the pores and to cleanse the skin of all impurities, and is very similar to the Turkish bath in its effects on the skin generally, and, like it, is delightfully refreshing to the skin. As soon as the steam is produced in the vaporizer, it can be applied at about a foot and a half from the patient, for twenty minutes or half an hour, and the face should then be gently rubbed over with a soft towel. This handy little instrument can be with benefit also used in all diseases that affect the throat, lungs, mouth, ears, and eyes—such as diphtheria, croup, bronchitis, laryngitis, and asthma.

TREATMENT OF ACUTE RHEUMATISM.—Salicylic acid or its derivatives are indubitably the best remedies for acute rheumatism, and are wonderfully effective if rightly and judiciously administered.

Whatever preparation is selected, it should be given in full and free doses, and although an individual is occasionally found in whom large doses produce delirium and prostration, the vast majority of people bear them with out bad effect. It is wise to visit the patient after a second or third dose, to note the action. If there is some fever, the skin dry, and the urine scanty, we may combine the acid with a diuretic and diaphoretic:

℞ Ac. salicylic, ʒ j.
Spts. ætheris nit., ʒ ij.
M. Sig.: One teaspoonful every one to three hours.

In severe cases a teaspoonful (representing about four grains of the acid) may be given every hour until there is a decided effect upon the disease. Ordinarily four hourly doses are required, and then the interval may be increased to two hours. If the pain is severe, a small dose of morphia may be added to each dose. After the skin becomes moist, and the urine free, it is often advantageous to change to a compound of the acid and soda, as follows:

℞ Sod. salicylatis, ʒ ii.
Sod. bicarbonatis, ʒ vi.
M. in chart No. 20 div. Sig.: One every two hours in one-half tumblerful of water.

If the bowels are constipated, they should be moved by saline cathartics.

When the joints cease to be painful, and the swelling has nearly subsided, no better tonic and anti-rheumatic can be ordered than the following:

℞ Ferri et ammon cit., ʒ ss.
Cord. cascar. sag., ʒ ij.
M. Sig : One-half teaspoonful in water after meals and at bedtime.—*The Analyst*, June, '89.

A NEW METHOD FOR THE ARREST OF CANCER.—Dr. J. Inglis Parsons contributes an article to the British Medical Journal of April 27th, entitled, "Arrest of Growth in Four Cases of Cancer, by a Powerful Interrupted Galvanic Current." Dr. Parsons writes in a candid and scientific spirit, and his observations are likely to arouse attention.

Dr. Parsons reports his cases, in which, practically, some interesting results were obtained. Three of the patients suffered from cancer of the breast, one from cancer of the cervix uteri. One of these is reported eight months, one six months, and two three months after the treatment. In all, quiescence of the previously active cancerous growth was secured. The technique of the operation is as follows: The patient is anæsthetized; the current is then passed through the tumor and all the tissues for some inches round it, by means of fine, insulated needles, so as not to injure the skin. A battery of 70 cells, with an electro-motive force of 105 volts, is used; the intensity of the current, to commence with, is 10 milliampères, gradually increased to 600 milliampères, and flashed through the growth in every direction from 50 to 100 times, according to circumstances. The pulse and respiration were carefully watched. One out of the four cases treated—a woman aged 63, with extensive carcinoma of the left breast, a presystolic *bruit*, and weak, intermittent pulse, was unable to stand more than 250 milliampères; and for this reason, when the current is applied to the left breast, electrical stimulation of the heart occurs, and if this organ is healthy, an increase in the strength of its contraction appears to take place after its passage; but with this patient, who had cardiac disease, the improvement only continued up to a certain point, and then the intermittency increased and great irregularity occurred.—*N. Y. Med. Record.*

THE CURATIVE TREATMENT OF CYSTITIS IN WOMEN.—T. More Madden, M D., F.R.C. (British Medical Journal), in discussing this subject, suggests the following method of procedure for the rapid relief of cystitis, viz:

Simply by so thoroughly dilating the urethral canal with an instrument as to enable us to pass the index finger into the bladder, and thereby paralyze the contractility of the sphincter or of the canal for a time, which may be indefinitely extended by repeating expansion in the same way as often as may be necessary. It may, moreover, be advisable in some instances to remove the proliferating vesical mucous membrane by the cautious employment of a dull wire curette. And, lastly, whether the curette be required or not, the method of dilatation just described should, in all cases, be conjoined with the topical application of carbolic acid to the mucous surface. The latter is best employed in the form of the glycerin of carbolic acid of the Pharmacopœia, which is quite strong enough for this purpose, and introduced by an ordinary stilette, armed with a piece of absorbent cotton saturated in the application, and passed through the dilator so as to avoid any of the acid being brushed off in the canal until it reaches the fundus vesicæ, where it should be retained for a couple of minutes until every part of the vesical wall contracts firmly upon it. The urethral canal is then to be similarly brushed out by another application of the carbolized glycerin. The pain caused by this procedure may be prevented by

previously introducing in the same way a ten-per-cent. solution of cocain. I have only to add that, according to my experience, the plan of treatment now recommended seldom requires to be repeated more than two or three times, at intervals of a week, to effect a cure of even the most aggravated cases of cystitis in women.

THE TREATMENT OF DIARRHŒA IN PHTHISIS.—Dr. Polyák, of Görbersdorf, gives in the Orvosi Hetilap the results of some trials he has made of two recently suggested remedies in the diarrhœa of phthisis—viz., silicate of magnesia in the form of talc which has been recommended by Debove, and lactic acid recommended by Drs. Sézary and Aune. About eight ounces of talc were well shaken up in a pint of milk, and this or even a larger quantity was given daily. As a rule, it arrests the diarrhœa after having been used for a couple of days, but if it was left off the diarrhœa returned. It was found, however, that patients liked the milk mixed with talc even better than ordinary milk, but it could not be taken for more than six or seven days, as after that time complaint was made of a troublesome feeling of oppression in the stomach and bowels. Dr. Polyák thinks it quite impossible that long-continued use of talc can heal intestinal ulcers. Lactic acid proved in his hands a much more satisfactory remedy.

The initial dose employed was thirty grains per diem in four ounces of water; this was increased subsequently, but not more than seventy-five grains per diem were given. On the third day the diarrhœa and the pain were generally arrested, and during the next day or two the stools assumed their ordinary character. It was found advisable to continue to give small doses for some time longer. The patients bore the treatment well; it produced no diminution of appetite, and, unless continued for a long time, gave rise to no disagreeable symptoms. Dr. Polyák thinks it possible that even ulcers of the intestines may be healed by this means.

TAR WATER.—Dr. William Murrell has recently delivered a lecture upon the therapeutic value of tar, and has gone very thoroughly into the history of its uses. He refers to a pamphlet, written in 1823, by Sir Alexander Crichton, entitled "Practical Observations on the Treatment and Cure of Several Varieties of Pulmonary Consumption, and on the Effects of Vapor of Boiling Tar in the Disease;" also to an article by Sales-Girons, in 1860, on the treatment of phthisis by inhalation of pulverized liquids and fumigations of tar. Dr. Murrell has been using tar in the treatment of chronic bronchitis, and speaks of it in the highest terms. He at first used two-grain pills, but has latterly prescribed the syrupus picis liquidæ U. S. P., of which the dose is about a tablespoonful, given frequently. He says: "A mixture of two parts of syrup of tar and one part of syrup of prunus Virginiana is an ideal cough mixture. It has a sweet, agreeable taste, and patients, as a rule like it. When the cough is very irritable, and there is very little secretion, the addition of three minims of liquor morphinæ acetatis will be found most useful. I have used with some success aromatic oil of tar, which is apparently a solution of tar in old Jamaica rum. The results have been good, and the preparation is popular with patients. When a more decided expectorant action is required, I add a small dose of hydrochlorate of apomorphin, about one-tenth of a grain."—*Med. Record.*

COCOANUT AS A VERMIFUGE.—Professor Paresi, of Athens, when he was in Abyssinia, happened to discover that ordinary cocoanut possesses vermifuge qualities in a high degree. He took, one day, a quantity of the juice and pulp, and shortly afterwards felt some amount of gastric disturbance, which, however, passed off in a few hours; subsequently he had diarrhœa, and was surprised to find in the motion a complete tænia, head and all, quite dead. After returning to Athens, Professor Paresi made a number of observations which were most satisfactory, the tænia being always passed and quite dead; in only one case was the head wanting. He orders the milk and the pulp of one cocoanut to be taken early in the morning, fasting, no purgative or confinement to the house being required.—*Lancet*, August, 1888.

A correspondent of the Times of India writes that the cocoanut has been used as a vermifuge in India for probably forty generations by the beef-eaters of the country, and is so well known there as a means of expelling the flat worm, that he cannot conceive how information of the fact has not reached England before. When properly prepared and intelligently administered, so says the writer, the cocoanut is equally efficacious with male-fern oil, kousso, pomegranate root, or turpentin, while it is as pleasant to the palate as they are offensive.—*Pharm. Jour. and Trans.*, Nov. 3, 1888.

CASCARA CORDIAL IN THE CONSTIPATION OF CHILDHOOD.—The common constipations of infants arising from imperfect digestion of the casein of milk, may be rapidly cured by 10 to 20 drops of cascara sagrada cordial once or twice daily. The stools in these cases are hard, light in color, and apt to contain large curds of undigested casein.

If the movements are of normal consistency and color, but irregular, and preceded by colic or flatulency, cascara cordial will give most satisfactory results. It should, however, be administered in small and repeated doses, and continued for some time after the case is apparently cured. Six drops four times a day will be sufficient for a child three months old. As a laxative it is mild and efficient, and unaccompanied by griping or subsequent constipation. It should become a domestic remedy, and replace the numerous preparations of rhubarb.

In scrofulous children with large abdomens, irregular bowels, and clay-color stools, voracious appetites and coated tongues, the cordial of cascara sagrada appears to have an action beyond a mere tonic laxative, for under its continued use the fæces assume their natural color, or become dark and green, the tongue loses its furring, and the whole system improves in tone. To obtain this alterative action, the dose must be sufficiently small to avoid catharsis.—*The Analyst*, June, 1889.

The Medical Age.

Vol. VII. DETROIT, JUNE 25, 1889. No. 12.

Original Articles.

CONSUMPTION AS I HAVE KNOWN IT.*

BY E. P. HURD, M. D.

On the south side of the St. Lawrence, inhabited by French Canadians, is a narrow tract of land bordering on the New England States and divided into two portions by the St. Francis: this region, diversified with hill and dale and extensive woods, is known as the Eastern Townships of Quebec.

About the latter part of the last century, companies of enterprising settlers, mostly from the Northern States, endeavored to effect clearings in the dense forests and make for themselves homes in these townships. Their privations were great, and it was only by years of hardship and toil that they succeeded in overcoming the difficulties of their environment and obtaining for themselves and their families the ordinary comforts of life. Want of suitable food, even of sufficient clothing, sometimes of proper shelter, together with the rigor of the climate (for six months of the year is winter), produced the usual debilitating effects on the constitution of parents and offspring, and consumption became the scourge of the Canadian colonists.

As one of the descendants of an Eastern Township's pioneer, I witnessed much of this dire disease in my younger days. The malady appeared in both the acute and chronic form, and when once it had manifested itself nothing could resist its progress. I have seen whole families disappear, one by one, by pulmonary phthisis; there were few families that did not lose thereby one or more members. Those hardy backwoodsmen were prolific, but overwork often prematurely undermined them, and their offspring was a physically deteriorated stock. Many of these pioneers were given to alcoholic excesses, and thereby further impaired their constitutions, and the children of such parents were neurasthenic and phthisically predisposed. Instances like the following were common:

Edmund B—— emigrated from Western Massachusetts to Canada, in 1792, when a young man, and was of healthy, non-tuberculous parentage. The account of the hardships undergone till a sufficient clearing could be effected, a suitable domicile erected to take the place of the primitive log hut around whose fire-place seven children shivered with the cold, would take more time than is allotted to this paper. The nearest grocery, and grist mill, were five miles distant; the roads could only be traversed on horseback, the winter's snow drifts were fearful. The family were often out of flour; fresh meat was scarce, though the rivers in the summer were stocked with trout; in the warm weather, when the hardest work must be done, salt pork, salt fish, potatoes, beans, and buckwheat, constituted the chief food. New England rum was not altogether a rarity, though the principal intoxicant was potato whisky. Edmund B—— early acquired a fondness for ardent beverages, and died prematurely from the effects of intemperance and overwork. His children all died of phthisis before attaining to old age; the grandchildren have been largely phthisical, every family counting two or more victims, though some have passed the middle life and are healthy; and among the great-grandchildren, numerous cases of phthisis have occurred, although on the whole, with the possession of better homes and more comforts, the thirty surviving descendants seem to be attaining immunity.

Among the elements which powerfully conduced to the development of phthisis in these settlers, rigor of climate deserves especial mention. Sudden and violent changes of weather are very common; the wintry cold, often as low as 30° F., is very protracted; the air often damp as well as cold, especially during spring thaws; the houses frequently too much shaded from the sun, by being situated on the edge of a forest. The settlers were greatly subject to colds and catarrhs, and most cases of consumption commenced with the latter. Some, coming from warmer countries, never became acclimated, but speedily succumbed to phthisis; others would withstand the severity of the climate for a series of years; when, however, age began to manifest itself, and the vital forces to deteriorate, catarrh or a sudden hæmorrhage would usher in the familiar train of morbid phenomena. Others, again, seemed to adapt themselves sufficiently to the climate, but entailed non-adaption on their offspring, as if in the struggle with environment, they were just equal to the occasion, but had no surplus energy to transmit.

* Read before the Climatological Society, Boston, June 24th, 1889.

Instances under the last category are very numerous. An interesting circumstance is that consumption is really becoming less and less frequent among the decendants of these early settlers, a fact, to which I allude on the testimony of physicians long in practice in the Eastern Townships. Another gratifying circumstance is that consumption is more curable than it used to be. Cases like that of my own brother are not infrequent. This young man left his home and went to Colorado, when apparently in confirmed tuberculosis; there was extensive dullness and moist crackling at the apices, with the general symptoms of advancing phthisis. A tramp of six months over the Colorado hills brought a return of appetite and strength, and a disappearance of the pulmonary symptoms; twenty years have now elapsed, with no return of the disease. It has been found that the cold, dry-climate-cure of consumption suits best. Patients have never been, to my knowledge, permanently benefited by going to a warmer climate; but many have sought restoration by change of climate when they would have been better off at home, and in my judgement the existence of a persistent high temperature — the thermometer being habitually above 100° F.—is a contra-indication to going abroad for relief, especially if the sanitary resort be distant.

At the present day, consumption is especially frequent among the Irish and English immigrants of the Dominion, who have to undergo the same slow process of acclimatization as the original settlers. This was my experience while practicing in Danville, Quebec: while there was considerable consumption among the descendants of the early inhabitants, there was far more among the Irish who had but recently come to the country.

Although I have but little acquaintance with the French Canadian part of Canada, I am assured by practitioners of eminence that phthisis is infrequent among the *Habitans*, that it is, in fact, "dying out." It is, however, quite prevalent among the French Canadians of cities owing chiefly to unhygienic surroundings. A physician in the city of Quebec wrote me: "Most cases of consumption that have come under my observation have been among the Irish and English; the disease is as common in the second generation as in the first. I have met this disease as frequently in the well fed as in the poorly fed, but in almost every instance, I could trace to defective hygiene, improper ventilation especially. Your theory, that want of acclimatization may be a factor in its genesis, is true as regards the *Habitans*, for consumption was far more frequent among them formerly than now; and it is well known that consumption was very rare among the French ancestors of this race. In Quebec, consumption is not common, and this we attribute to the healthy location of the city, and its excellent drainage."

If, thus far, I have said nothing about the tubercle bacillus and contagion, it is because I attach much more importance in the matter of etiology to inherited or acquired vulnerability than I do to the bacillus. He, of course, would be hardy man—I would not, in fact, hesitate to use a stronger word and call him a *fool*—who, after duly reading and weighing all the evidence *pro* and *con*, would say he disbelieved in the causal agency of Koch's bacillus tuberculosis. Doubtless, the presence of the latter is necessary to the constitution of the disease as such, but that consumption really begins in a preparation (or degredation) of the organic culture soil, in a condition of mal-nutrition which is *the first cause* of the disease, is to me unquestionable. Thus far our principal therapeutic successes have attended the endeavor to make the culture soil unfit for the bacillus. It was early understood that the best that we could do for our patients was to raise the vital forces and improve the nutrition of the parts that are the favorite sites of tubercle. We cannot reach the bacillus to damage it by antiseptics, but we can sometimes, by promoting nutrition, make its haunts uncongenial; we can render more efficient the resistance of the organic protoplasts. This is accomplished in a variety of ways. If I may be permitted to deduce rules from my own limited experience, especially since I have been a New England practitioner, I would say that, for many of our consumptives too poor to afford long journeys, we can do no better than to recommend them, if possible, to get away into the country, and to change their habits of living from outdoor to indoor life. It is well ever to bear in mind, in making a choice of climate that, as a rule, that is best for an invalid which is the most unlike the climate wherein he acquired his disease. Even this, however, must be taken with great reservation. Many of our consumptives, foreigners, have contracted the disease by habitually breathing the vitiated air of factories and work-shops. Others are cases of inherited or acquired phthisis, where the patient, native to this soil, has abandoned an outdoor for an indoor life. Here, a return to open air occupation would be likely to benefit. On the whole, the formula of CELSUS is the most sensible, and is open to no objection: "The worst air for a patient is that which has given rise to the disease." This gives us etiological hints sufficiently easy of application.

As regards diet in phthisis, there is no subject of greater importance. Consumption being essentially a disease of mal-nutrition, often engendered by insufficient alimentation—food meagre in quantity or quality, or both—it is evident that any attentions that do not com-

prehend careful supervision of the ingesta, will be of little purpose.

My note-book contains many striking cases of consumption in the early stages among French Canadians, where, putting the patient on a full diet, of which fresh meat was a large component, with pure cod-liver oil (made in Newburyport) and four ounces daily of old West India rum, did wonders for them in a short time. The meat was often given in the shape of raw beef, scraped or pounded into jelly, and mixed with a little rum or brandy. Of this, sometimes three or four ounces would be ingested during the twenty-four hours. Of milk, the more taken the better; often a little rum or whiskey was added, and an egg was dropped in, when the stomach of the patient would bear it. Cream is an excellent dietetic adjuvant when it can be obtained. Cod-liver oil is a first class nutrient, and is always benefical when it is well borne and does not disturb the appetite; unfortunately, however, but a small proportion of patients can take cod-liver oil long enough, or in sufficient doses to do them much good. Some of the malt extracts have seemed to me of much utility; these probably act by furnishing to the absorbents a considerable quantity of easily assimilated nutriment.

I have not seen any evidence that phthisis in man is ever contracted from a similar disease in cattle; in fact, I should say that bovine phthisis is almost unknown in Canada, and very infrequent in New England. Nor do I remember ever to have witnessed a case that I could clearly trace to contagion, *i. e.*, where a healthy, undisposed subject contracted the disease from a phthisical person. I have seen consumption go through families, but here a common cause could be alleged. At the same time, there is no doubt that inhalation of the dried products of expectoration may produce the disease in man as well as in certain of the lower animals, for the essential infectiousness of tubercle and tuberculous sputa, is a fact that has been well demonstrated in our time.

In studying the march of consumption in New England, I select the city of Newburyport, Mass., as the type of an old-fashioned New England city, with a population that has been nearly stationary for the last fifty years. If there has been any change in the population it has been in the direction of an increase of the foreign element, coincident with the development of manufacturing interests during the past two or three decades. A considerable part of the native population occupy homes that have been family inheritances for several generations. An old seaport and fishing town, many of the leading inhabitants with pride trace back their ancestry to the original settlers of this country. Add to this that the city has salubrious surroundings, and is remarkably free from malarious and zymotic diseases, yet from its situation (on a declivity near the ocean), is exposed to chilly winds and inclement weather, and thus presents as much as any city in the commonwealth the suitable climatic conditions for the development of consumption.

I have at the cost of considerable time and labor, compiled statistics of the mortality from pulmonary phthisis in this city for the past twenty-five years. The preparation of statistics always includes the expenditure of much toil and research, and few readers are interested in the presentation of a formidable array of figures; all, however, are anxious to obtain the results. It is understood by those who have ever compiled such statistics that only approximate accuracy can be obtained, for death returns (often made hap-hazard) are notoriously unreliable; it is, however, true that such as record consumption are likely to be the most reliable of any. Add moreover, that no very startling conclusions can be expected from statistics embodying the data of only a brief series of years, while hints may certainly be obtained as to the tendencies of great natural laws which slowly but surely work out their results.

First, then, my statistics show a total mortality from all causes, for twenty-five years, of 7,234; the average population being 13,509. Of these deaths 1,235, or very nearly one-sixth, were from consumption. Consumption, then, is still the most potent cause of mortality here as elsewhere.

There is general harmony between these statistics and those published by Dr. J. Curtis in the American Journal of Medical Sciences more than forty years ago. From Dr. Curtis' table it appears that deaths from phthisis in Boston during the twenty-eight years from 1821 to 1848 inclusive, were 1 in 5.76 of all deaths, or 17.36 per cent. Dr. Maynard, from an examination of the statistics of New York for thirty years prior to 1850, gives the proportion in that city at 1 in 5.54 or about 18 per cent.

Dr. C. M. Snow, of Providence, R. I., in his valuable notes on the Causes of Death, in City Registrar's Report, 1881, gives an average percentage for twenty-six years, 1856-1881 inclusive, of 16.69 per cent. According to my figures, for the twenty-five years ending December 31, 1882, the average death-rate from consumption has been 1 in 285 of the whole population, or or 3.77 in each thousand persons. Dr. Snow gives the average death-rate in Providence for the twenty-seven years, 1855-1881 inclusive, as 1 in 319, a considerable decrease over the average annual rate for the fifteen years, 1840-1854 inclusive, which was 1 in every 209 inhabitants.

The following table shows the ratio of mortality from consumption among the native population for five periods during the term of

25 years. The ratio of mortality among the foreign population is also shown: by comparing the latter statistics with the former, it will be seen that the death rate from consumption among persons of foreign parentage is far in excess of that of the native population. The foreign population of Newburyport, is estimated at 3,000; it is, however, premised that the foreign element of any community is very variable and fluctuating, especially in manufacturing towns where seasons of great business activity alternate with seasons of great depression. There have been years when the mortality from phthisis among foreigners has been very great, as in 1879; years when there has been an unusual influx of foreigners, chiefly Irish, and French Canadians, who, bringing to this country constitutions enfeebled by hardship and privation, fell easy victims to the rigor of our climate. It is not an uncommon experience for physicians to record two and even three deaths from consumption in the same family and in the same season, nor is it unusual for parents coming originally from Ireland, and free from all hereditary tendencies to consumption, to see their sons and daughters succumb, one after another, to the same disease.

POPULATION OF AMERICAN PARENTAGE.

1858—One death from consumption in	.....	378
1865— " " " " "	.....	564
1870— " " " " "	.....	252
1875— " " " " "	.....	300
1880— " " " " "	.....	351

POPULATION OF FOREIGN PARENTAGE.

1858—One death from consumption in	....	273
1865— " " " " "	.....	150
1870— " " " " "	.....	161
1875— " " " " "	.....	176
1880— " " " " "	.....	136

Yearly average among persons of American parentage, one death from consumption in 336. Yearly average among persons of foreign parentage, one death from consumption in 179.

The lesson taught by these tables is that consumption is far more prevalent among foreigners than among natives; as far as the latter are concerned, there is a gradual decrease in the death rate from this disease. This truth is still more apparent from DR. SNOW'S carefully prepared statistics for a similar term of years; any difference in detail being possibly explicable in part by the fact that the climate of Newburyport is somewhat more severe and changeable than the climate of Providence, and as a consequence, is more trying to foreigners. DR. SNOW'S table gives among the population of American percentage in 1875, one death from consumption in 415; this is contrasted with the much higher mortality from the same disease in the foreign population, viz., 288. In 1880, the ratio among foreigners was one death from consumption in 268; among native born Americans, one death from consumption in 435.

The words "native population" refer to decedents of American parentage, not always, however, acclimated to the locality where they died. In fact, reference to the mortality records shows that many of these decedents were comparative strangers to the locality, emigrating from homes more or less distant. Persons, for instance, coming from inland regions, often find our east winds and fierce north-westers very trying; and latent predispositions to phthisis are very likely to be awakened, especially if there be much exposure to our chilling spring weather.

The relative infrequency of consumption among the descendants of families that have many generations been fixed to the soil, is a conspicuous fact. Such families, for instance, largely of British stock, as the LITTLES, the LANTS, the WITHINGTONS, the LOWELLS, the WOODS, the SIMPSONS, the PIKES, the MOODYS, the KNIGHTS, the SPALDINGS, the STONES, the PETTINGILLS. I have inquired concerning the mortality records of all these families, and many more native to this region, and find consumption almost unknown for several generations.

It is almost too much of a truism again to repeat that, in the struggle for existence the strongest and fittest survive. Nature by a process of selection gradually weeds out the sickly and infirm—those not adapted to these conditions—letting those live who by inherent vitality can successfully cope with the difficulties of their environment. This truth is exemplified in the history of consumption in New England, which seems to be one of Nature's principal agencies for the removal of the non-adaptable. The native race is becoming more hardy, at least in respect to resistance of severities of climate, while immigration is furnishing, and will long continue to furnish, the customary quota of deaths from consumption.

From what has gone before, it will be perceived that the typical consumptive of my experience has been the man or woman with feeble organization, inherited, innate or acquired, who by non-adaptation to the rigors of climate, becomes a victim to the bacillus tuberculosis. It must, however, be admitted that a condition of debility as we commonly understand the term, does not invariably seem to precede the attack, or, to speak more correctly, the invasion of Koch's bacillus. I have now and then seen a man apparently in perfect health, stricken down in the flower of his manhood with progressive tuberculous disease; a severe cold, an attack of measles, hæmoptysis, being the immediate precursor. Not every debilitated youth becomes a victim to phthisis, and never in the past was neurasthenia more

prevalent in New England than to day. Perhaps the state of the pulmonary tissues as to nutrition, their resistance or non-resistance to the specific disease germs, has more to do with the prevention or causation of tuberculosis of the lungs than any other factor. In some instances these naturally delicate organs may be weakened by exposure to severe atmospheric changes and succumb to the microbe of phthisis, albeit the other organs and tissues may be in a good state of nutrition. Such cases are, I believe, apt to be acutely inflammatory in their type.

In other instances, the lung may be the soundest part of a feeble and sickly organism, and sturdily resist every destroying agency.

The analogy of certain other infectious diseases, as anthrax, would lead us to look for an acquired immunity in the course of successive generations constantly exposed to the same predisposing and exciting causes; anthrax once devastated the flocks of Algiers, which have now outgrown their susceptibility to this disease.

Excessive dampness and moisture, especially cold dampness, is an undoubted factor of considerable importance. I have more than once noticed unusual prevalence of the disease in damp, much shaded localities, especially in houses built on cold, clayey soil, with little sunshine (the sun's rays being intercepted a part of the day by hills, houses, or trees), and exposed to bleak winds. I need not say how much our venerable DR. BOWDITCH has insisted on such conditions as being factors of prime moment in the etiology of consumption. In the light of now prevalent etiological notions, we can, of course, regard excessive atmospheric moisture only as one of the predisposing causes.

CLINICAL LECTURE AT THE EMERGENCY HOSPITAL—AMPUTATION OF THE LEG —VALUE OF EARLY TREATMENT OF INJURED PERSONS.

BY HAL C. WYMAN, M. S., M. D.*

GENTLEMEN: I want to speak this morning about a man who, you remember, was brought into the hospital several days ago, with a compound comminuted fracture of both bones of the leg, caused by being run over by a street car. His leg was amputated through the upper third by the circular method. He died 36 hours after the operation. You saw him and remember how pale he was when taken from the ambulance. He was given morphine, $\frac{1}{4}$ grain, and two hours elapsed before he had revived sufficiently from the shock and hæmorrhage caused by his injury, to make any operative procedure safe. All this time an elastic tourniquet compressed his popliteal artery.

The ambulance surgeon told us how he had found him lying on the sidewalk, with a stream of arterial blood running from his wound. The people who formed a circle around him made no effort to control the bleeding. He had been drinking heavily and was stupid drunk when the accident occurred, yet the bystanders poured more whiskey down him.

It is a fact that in a large city in time of peace, the traveler on the street stands in more danger to life and limb than the soldier in time of war. The population of the United States is increasing rapidly; large cities are growing in every part of the country, and surgeons in these cities are having more work thrown upon them.

Ten years ago, ambulance service and accident hospitals were unknown in the United States; now they are being organized in every important city. For this work the medical student needs to be thoroughly drilled, that he may be better qualified to look after the many accidents which modern civilization render unavoidable, than are the practitioners who were educated fifteen or twenty years ago. This man lost his life because of the severity of his injuries and the resultant hæmorrhage; the tourniquet came too late. The conductor or the driver of street cars should be supplied with an elastic band to throw round a limb the moment it is mangled, and physicians should teach them how to apply it. The profession must make some decided effort to teach the public better means of rendering first aid to injured people than simply pouring whisky down their gullets.* This will come, however, only when the profession is better trained—when it is realized that serious accidents are constantly occurring in crowded communities. In the quiet rural districts it may possibly answer for the doctor to cloth himself with dignity and travel about at the same gait as the parson and undertaker, but in the bustling cities with their rapid methods of transit, the physician who practices the "get thar stroke," will do the business, win the laurels, and secure some, at least, of the rewards.

When you arrive at a street accident you should be provided with at least an elastic bandage, and a pair or two of artery forceps for securing blood-vessels; or if you have one you can dispense for a time with the other. Your first endeavor should be to control the bleeding in which no time should be lost. Throw your elastic band (three or four feet of rubber tubing will answer) quickly around the

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* Dr. Dulles, of Philadelphia, is the author of a little book entitled "What to Do for the Injured," every student should possess a copy, and what is more read it, and see that his lay friends also peruse it.

limb above the bleeding wound, between it and the heart, and without the delay essential to removing clothing, or to determine the precise locality of the injury with your finger in order to make an accurate diagnosis of its extent and gravity; but compress and ligate the limb, clothing and all, by rolling the band or tubing four or five times tightly around the injured member drawing it tight as you roll it. A few times around will suffice to close every artery and vein in the limb. If you have no rubber band or tube use the patient's or your own suspenders, or a bandage, cord, or handkerchief. If the material is inelastic, after encircling the limb, put your cane or a stick through it and twist until the bleeding is stopped. Now, I have here several articles just mentioned; some of them are always at hand, and I will show you on this man who has generously consented to illustrate my lecture, how they may be made to work. Look and see how quickly the elastic band applied around the thigh at its lower third stops the pulsations in the posterior tibial artery. We know if that artery is obstructed all others below the knee are closed. The suspenders you see work the same way, only I pull a little harder as I roll them. The handkerchief and the cord with the cane or stick are twisted around the limb until they are as efficient as the other articles.

Now what are we going to do with our artery forceps and nice little pocket-case of sparkling instruments? Let's see; we'll keep them in our pocket until we get our patient to a more convenient place for using them than the street. In the meantime, having controlled the bleeding, we will study the injury. There may be broken bones; we examine carefully, and, if they are broken, improvise a splint to hold them steady while the patient is being removed to a place of safety. Army surgeons drill the musicians and chaplains to do this work on the battlefield. The broken leg or thigh we can temporarily make easy by binding it to its sound fellow leg or thigh; or we may take newspapers, or straw, or boards, and bind them on the injured limbs so that the jagged points can do no further damage. If an arm is broken, it can be transported with safety by laying across the chest or abdomen, and binding it there.

Then, all this done, how are we to move the patient? The man who died was probably carried from the track to the sidewalk with his crushed and bleeding leg dangling and tearing the bloodvessels and nerves. The illustrious Percival Pott, one of the most eminent surgeons the world has known, who gave his name to Pott's disease and Pott's fracture, was run down in the streets of London, and his leg fractured. He would not allow himself to be moved, but obstructed the street until he had arranged to have his limb fixed so that in moving no further injury could be inflicted. He had to fight with his cane to keep the crowd who gathered around him from dragging him away, and further injuring him in their desire to do him a service. When you get ready to move your injured man, use a stretcher, if you have one at hand. They ought to be obtainable at intervals of every block or two on crowded streets and in manufacturing districts, where accidents are of most frequent occurrence. If there is none, improvise one. Take a door, a shutter, a board, a coat with canes or umbrellas run through the sleeves. Lift the man gently and lay him on it. Two men can make an easy stretcher which answers well for transporting fracture of the legs or arms, by joining their hands under the thighs and nates of the patient and having him sit and lean his back against their shoulders. If you will think, and practice on your fellow students, you can devise means which may prove very useful to you in transporting your patients. When the wounded one has reached a place of safety, do not be in a hurry to amputate if you do find arteries crushed and the limb apparently destroyed. An amputation may be performed a week hence, but a limb cannot then be replaced, and nature sometimes exhibits wonderful recuperative powers. Amputations also are very serious and very simple operations. They increase in gravity as they near the trunk. Think twice before you do such an operation. Your patient might want to make a will, or speak a word with his sweetheart. In the meantime you could estimate the constitutional disturbance caused by his injury and avoid the danger of compounding the shock. If his pulse is small, very rapid, and respiration hurried and mind dazed, give him stimulants in the shape of morphine, coffee, ammonia, brandy or whiskey and apply warmth to his body by means of hot bottles, bricks or blankets. Then when the circulation gets slower, respiration easier and mind calmer, you can examine the wound at leisure and amputate if necessary. If not, you can catch the large arteries with your forceps, ligate them, twist the small ones, remove the elastic band and catch and tie any vessels you find bleeding. All details of dressing the wound must now be vigorously carried out, and some of the instuments in your pocket cases will be found very useful.

FAVUS.*

BY HENRY J. REYNOLDS, M. D.†

Gentlemen: I desire to direct your attention this morning to a skin disease belonging to the class known as *parasitic*. We have two

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principal forms of parasite giving rise to the diseases of this class, viz , *animal* and *vegetable*. The various forms of pediculosis and scabies constitute the diseases caused by the animal parasite. Arising from vegetable origin we have three forms, the manifestations of each being somewhat different, as likewise is the vegetable parasite, fungus, or growth, giving rise to each. They are: *tinea versicolor; tinea trycophytina*, or ringworm—under which head three manifestations, differing only in location, are embraced viz., *tinea circinata*, or ringworm of the non-hairy skin, *tinea barbæ* or *tinea sycosis*, known as "barber's itch," occurring in the bearded region, and *tinea tonsurans*, confined to the scalp; and *tinea favosa*, or favus. It is to the last named that I will now confine my remarks.

Before examining the two patients before you, both presenting typical cases of favus, let me first give a general idea of the symptoms, characteristics, and clinical history of the malady, without which it would be impossible to examine and study this affection intelligently. Being a parasitic disease, it of course results from contagion; its contagious character is its first characteristic.

Always a scalp disease, nevertheless the non-hairy skin, and even the nails, may be occasionally coincidently affected. It is comparatively rare, however, occurring with about the same frequency as *lupus erythematosus*, and, like that disease, is much more common in Europe than America. The disease is first seen as one or several small yellow spots beneath or within the epidermis. In from two to four weeks these spots enlarge and form pea-sized, cup-shaped, yellow, sulphur-colored crusts, each penetrated by one or more hairs, that upon removal leave a correspondingly depressed, moist, reddened surface. As the disease advances, these lesions, which are as yet discrete, become confluent and fused into a general continuous mass of yellow, sulphur-colored crusting; though here and there, especially near the margins, the cup-shaped character may still be observed. This condition represents the disease as usually first seen by the physician, and may, if of very long standing, involve nearly the whole scalp, or may be confined to isolated patches. The crusts always have their own peculiar consistence, being more friable and brittle, perhaps, than the crusts of any other skin disease, breaking down almost like cheese. There is usually little inflammatory trouble, though the skin is usually hyperæmic, and pus may form; the crusting, however, as demonstrated by the microscope, is largely composed of the fungous growth rather than of dried pus or other inflammatory products. The hairs and their follicles are invaded by the parasitic growth, and become loose, lustreless, and brittle. If the disease continues, the follicles, from irritation and inflammatory action, in time become completely destroyed, so that the hairs cannot be reproduced—leaving, as a relic of the disease, partly bare smooth places here and there, where to some extent spontaneous cure has taken place.

The disease, generally beginning in childhood, manifests a characteristic odor resembling that of mice, and exhibits no tendency to symmetrical distribution like *seborrhœa, psoriasis*, etc., but is a most chronic affection, and lasts sometimes for many years. The subjective sensation is usually that of mild or moderate itching. The crusts may be all removed by careful washing and cleansing, leaving a surface apparently almost free from disease, yet, under favorable circumstances—heat and moisture—they will be very rapidly reproduced, in a very few weeks presenting the same appearance as before. Lastly, the malady is not constitutional, but purely local, and may readily be transmitted to or from lower animals, as cats, dogs, rabbits, mice, etc.

This little boy of eleven, otherwise apparently healthy, has had the disease for seven years. He gives us no history of contagion, but upon questioning, we find a little brother has a similar spot on his scalp, which would tend to show the first characteristic referred to —*contagion*.

The history of the second case, is of little interest, further than the patient is 25 years of age, and has been afflicted with the disease for seventeen years. Like the boy, he has been treated more or less by numerous physicians, without receiving permanent benefit, this fact tending to show the very stubborn and chronic character of the infection.

As the affection is a parasitic one, it is usually met with among children, especially the uncleanly; adults being peculiarly exempt from it; but like other diseases of its class some individuals are more susceptible thereto than others.

The microscopical organisms or vegetable growths to which favus owes its origin, upon being deposited upon the skin, gain lodgment beneath some of the superficial layers of the epidermis, particularly in the depressions around the roots of the hairs. As they grow and multiply, they burrow in all directions, down into the follicles, into the hair bulbs, and even into the tissues of the shaft of the hair for a short distance from the scalp, though not to the same extent as the similar parasite of *tinea tonsurans*, and soon become so aggregated as to form a small yellow spot with a thin covering in the horny layer. The latter soon increases in size and forms the characteristic cup-shaped crust, and is, of course, composed almost entirely of the vegetable growth. The nutrition of the hair is thus interfered with, and in due time loses its lustre, becomes brittle,

and as the bulb atrophies, loosens, and falls out. It may grow again, but if the disease continues until the follicle is destroyed reproduction is impossible, and partial baldness is brought about. In the epidermis the parasite works very superficially, and the deep or true skin, though not invaded, speedily assumes an irritable, inflammatory condition.

The recognition of a typical case of favus, or in other words a case wherein most of the symptoms and characteristics are present, is a matter of no great difficulty providing we know and are familiar with those char acteristics. The disease is not always typical, however; for instance, if the patient when first seen has been under treatment, or has given the scalp ordinary good care in the way of washing, etc., the crusts may be moderate or even absent, and it would then be very difficult to make a diagnosis from the appearance of the part. In one of these cases, the history given by the patient of the previous character and behavior of the scab, as regards crusting, color, etc., would arouse suspicion, and in any event, the use of the microscope would settle the question. Of affections presenting striking resemblances are *eczema, tinea tonsurans* or ringworm of the scalp, and *psoriasis.*

We have the parasitic or contagious origin in favus. In eczema, though we may have it at the same time, it is not propagated from one person to another. We have much greater irritation, more serous exudation and itching in eczema than in favus. The crusts, though sometimes inclined to be yellow in the former, never present the bright color of the latter, but rather a dirty hue, and in eczema they never exhibit the brittle quality nor the umbilicated condition that is characteristic of favus. Further, in eczema the disease is not so liable to be continuously confined to the same patch but will usually be more generalized and quite probably show an irritated, red, eczematous condition of the face at some time during the career of the disease; neither do the hairs show the brittle, lustreless quality with a tendency to fall that pertains to *tinea favosa.* As to the odor of the part, it may be offensive in eczema under certain conditions, but is never of a character that can be denominated "mouse-like."

In *tinea tonsurans* we do not have crusts but scales, and the disease spreads centrifugally by peripheral extension, etc., and for this reason *psoriasis* of the scalp is sometimes diagnosed as favus. In the former, however, though the scales may at times accumulate in crust-like masses of dirty yellowish color, there rarely need be trouble in discriminating; even without the microscope the scaly or crusty accumulations of psoriasis never have the sulphur color, are never cup-shaped, and are more general and almost always involve various portions of the non-hairy integument; the hair moreover, retains its normal lustre, is not brittle, broken off, or loose, etc., and if the disease has lasted for years, it will usually give a history of having some time during its course, been entirely well, which is never the case in favus.

Favus being dependent upon a parasitic or fungus growth, it naturally follows that remedies which eradicate the cause will cure the disease, providing they may be applied so as to reach it; and therein is the great, and only difficulty. The growth being a very small, microscopical one, penetrates to the bottom of the hair follicles and even the hair structure itself, and is therefore very difficult to reach. The class of remedies used are those capable of destroying vegetable organisms known as parasiticides, and it matters not which of the long list be used, though it is probable that certain combinations penetrate to the deeper parts more readily than others.

It is necessary first, as in treating other diseased surfaces, to remove the crusts, which is readily accomplished by frequent anointing, and washing with soap and hot water. This being accomplished, we know now that if the hairs—which are usually loose in the diseased patch—be removed, every place invaded by the growth can readily be reached by the local application. This procedure is undoubtedly not always necessary, but in stubborn, old-standing cases, will be found more satisfactory. In this way relief is assured, while to treat without removing the hairs is always tedious and uncertain. In any event, whether epilation is, or is not, resorted to, the remedy must be thoroughly rubbed in day after day for weeks, perhaps months, at a time. It is well occasionally to discontinue for a brief period to see if the crusting is reproduced, and to what extent, when if any disease be found, the process must be again repeated until the malady fails to reappear.

In these cases the hair will be shingled and parts anointed with some oleaginous preparation—of which there is none better than lard—three times a day, and washed with soap and hot water once a day; and in a few days, as soon as well freed from crusts, the hairs will be removed. Next will be applied thrice daily a solution of ten grains of bichloride of mercury in an ounce of chloroform, continuing as previously suggested, for a month or so.

The prognosis in a case thus treated, is always favorable, provided, always, that the treatment be rigidly and carefully persisted in for a sufficient length of time.

This vegetable parasite, or fungous growth may be prepared for the microscope—by which means we are enabled not only to arrive at a positive diagnosis, but to demonstrate what we

have said of the pathology of the disease—by taking a very small piece of the crust, moistening on the slide with a little water, covering with a cover-glass, and placing under a one-sixth objective. The fungi can then be seen in great abundance. First, will be observed, small, round, globular or oblong bodies; perhaps, also, small elongated tubular bodies, some of which are chain-like in appearance, of a similar diameter. The former which are presented in great numbers are what are termed *spores*, and are not exactly uniform in size, but vary from about $\frac{1}{7000}$ to $\frac{1}{5000}$ of an inch in diameter, or about one-third to one-half the diameter of a red blood corpuscle as seen under the same power. The tubular, thread-like elongations are mycelia, and the chain-like bodies are either spores linked together, or mycelia traversed by transverse septa, which in all probability ultimately divide into spores.

Correspondence.

PHILADELPHIA LETTER.

The Sanitarium at Red Bank and its Great Work—Prevalence of Typhoid—New Examination at Blockley—Picture of Miss Alice Fisher—Mrs. Hawley—Prof. Kelly and the Johns Hopkins University—The European Exodus.

JUNE 15, 1889.

The other day I met one of the many generous friends of hospitals and the poor sick, viz., JOHN F. SMITH, of this city, who has established free beds in every Quaker City hospital except one. He has given to almost every charity, and not the least of his gifts was that of $27,000 for the steamer which runs to Red Bank Sanitarium, and every summer carries 90,000 babies from the city to a pleasant resort for the day. If ill, they are allowed two weeks in the Sanitarium; and in this way worn-out mothers and wan children taste the pleasures of an excursion down our pretty bay.

We have had a great deal of typhoid this last winter and spring, our hospitals being full of them, and private practice has grown from the same cause. Despite house to house visits of the health officers, who have the power to abate any nuisances which they find, or order any sanitary correction, the fever still remains.

A new rule is expected to be put in force regarding the examination for resident physicians for the Blockley Hospital. The Mayor will request the Board of Trustees to adopt a law that the Examining Committee shall consist of representatives from each of the three regular medical schools, outside of their professors; and that when the hospital staff is reorganized in January next, that the schools shall each be equally represented.

If this be done, it will not be because there are any charges of unfairness or dishonesty against the examiners, but because it is the City's hospital, and the public demand such division.

There was a meeting in the Nurses' Training School of Blockley, lately, to present to the school a portrait of the late ALICE FISHER, the English nurse whom the city imported a few years ago, and who created such a furor here. She was bitterly opposed by the Irish population and Irish politicians, simply because she was English, and they nearly succeeded in getting her removed. But the better class of citizens came to her rescue and kept her firm in her position. The picture was begun in 1887, before her death, by MISS ALICE BARBER, and is three-quarters life size, representing MISS FISHER at her desk in the uniform of the hospital. It was intended the presentation should take place June 3d, the second anniversary of her death, but because GENERAL and MRS. HAWLEY were unable to be present the date was changed. MRS. HAWLEY was MISS HOMER, MISS FISHER'S assistant. They were both grand-looking women, and well deserved their reputations. MRS. HAWLEY constantly wears a badge, pinned on her breast by the hands of Her Most Gracious Majesty QUEEN VICTORIA, and is naturally proud thereof; it frequently is the only decoration to her attire.

DR. HOWARD A. KELLY, Associate Professor of Obstetrics at the University, has accepted a call to a similar chair at the Johns Hopkins University; this makes the second professor the Baltimore school has taken from us in a few months, due to the fact they pay large salaries and give plenty of room for each professor and his branch. For example: PROFESSOR KELLY, although a professor of but one year's standing, will receive a salary which makes him independent, and will have a large ward in the elegant new hospital, beside twenty private rooms in which he can receive pay-patients of his own. He goes to Germany in a few weeks, and will bring home a German bride, daughter of a German professor, in the fall. His career has been remarkable. Five years ago, on graduation, he went into the poorer part of town, called "Kensington," and established a hospital for the women working in the mills and factories, and in this way obtained a deal of practice; many unusual cases, and many remarkably successful operations fell to his lot. He became, although still in his twenties, so well known, that a year ago, when PROF. PENROSE resigned, he was appointed Associate with DR. HIRST. He has, among other records, one for performing three success-

ful Cæsarean sections in the space of twelve months.

There has been, and is, a great flocking of physicians from here to Europe for the summer. It has grown to such an extent that many practitioners, young and old, think nothing of spending three to six months in Paris or Vienna.

J. H. A.

AN ANN ARBOR STUDENT'S VIEWS OF THE ESTABLISHMENT OF THE CLINICAL DEPARTMENT OF THE UNIVERSITY AT DETROIT.

EDITOR OF THE MEDICAL AGE:

During all the controversy regarding the moving of the medical clinic from Ann Arbor to Detroit, it has been a matter of some little surprise to the students who attend these clinics, that their own views upon the subject have apparently been considered of so little moment that no one has taken the pains to discover them. It may be that the average medical student is in such an embryonic state that his ideas upon a subject so important would carry but little weight; but be that as it may, it seems but right to suppose that an airing of them at this particular juncture might be made with good effect, both for the benefit of the present students of the medical department and for those who are to come after them. While it is undoubtedly the case that there are many students who make it the object of their lives to complete the course with as little work and thought as may be—their primary endeavor being to obtain a degree—there are others, and, I trust, the majority, who are conscientious and painstaking, and who are desirous of taking advantage of every possible means to increase their knowledge, It is in behalf of this latter class that I write. That such advantages are not available at Ann Arbor, and never will be, is so patent to even a casual visitor at the clinics, that it appears remarkable that there ever could have been an opinion to the contrary. On account of deficient clinical advantages, the medical department here at the University has been for years merely a stepping-stone to Eastern institutions; and just so long as students who strive for a thorough and complete medical training realize this fact and are so situated as to afford the additional expense, just so long will they continue to take their degrees at colleges which are wider in their scope and hold forth such inducements as to warrant the thought that at the end of their course, their knowledge of medicine in all its branches will be founded upon something more solid than what they have been able to glean from their text-books alone. If this is not so, why is it that each senior class here at Ann Arbor, is smaller by fully twenty-five per cent. than the junior class of the preceding year? In the junior class of 1887–88, there were 108 students; in the senior class of 1888–89, its successor, there are 89, only 81 of whom were members of the former junior class—a decrease of 27. The junior class of the medical department of the University of Pennsylvania, at Philadelphia in 1887–88, numbered 139; the senior class in 1888–89, numbered 160. As a matter of course many students after completing their first year of study are either dropped from the roll on account of inability to keep pace with their associates, or, for reasons best known to themselves, discontinue the study of medicine entirely. This happens yearly at every medical college in the country; but it is somewhat unreasonable to suppose that those who leave the Ann Arbor department after completing two years of the prescribed course, do so for either of these two reasons. It is simply because the vastly superior advantages offered by medical schools in the Eastern cities are so evident as compared to those at Ann Arbor that there can be no possible question as to the advisability of making the change. What an undergraduate needs more than anything else in his clinical work, is the opportunity to study disease in its *acute* stages and the remedies given to check its onward progress, rather than chronic cases which are practically incurable, and medicines unable to relieve.

A house-builder does not begin his house by first putting on the roof; then why should a student begin his clinical course with the class of cases which he is only prepared to study after having completed the foundation and walls of his medical education? He should have opportunities to study fevers and contagious diseases at the bedside of the patients; to make diagnoses, and, under the eye of the Instructor, prescribe remedies. Does he ever have such opportunities at Ann Arbor; such opportunities as would be his at almost every reputable medical college the wide world over? A glance at the figures which I shall give presently fully answers the question. The argument made by Drs. Herdman and Vaughan before the legislative committee during the last week of April is so misleading that one is inclined to wonder from whence the information was derived upon which it was based. Dr. Herdman said that at Ann Arbor "there has been sustained a more efficient clinic than is furnished by almost any other medical college in the country, not excluding those located in the cities. * * * The present daily average of patients in the hospitals at Ann Arbor is about 80, and since the purpose of the establishment of our hospitals is primarily to furnish clinical instruction to the students of the medical departments, no patient comes who does not expect to be used in this way."

I have had full access to the hospital records for the present college year and besides have been a regular attendant at the clinics and just what this statement is meant to convey I am at loss to determine. The number of patients in the two hospitals to-day is 60, and by far the largest majority are those suffering from chronic diseases of long standing, the exceptions being eye and ear patients of Dr. Frothingham and a few surgical cases of Dr. Mac Lean's. Some of these patients have been there for months and have appeared time and time again before the clinics until the students know their histories by heart. These help very materially to make up "the daily average of eighty!" Dr. Herdman continues: "Every patient above recorded appears before the clinics. This, it is well known, is not true of the whole number of patients that are inmates of other hospitals throughout the country that

are organized for charitable purposes and controlled by trustees wholly or largely made up of laymen." I have before me catalogues of all the largest and most important medical colleges in the United States with detailed reports of all public and private hospitals to which their respective students have access. That of the medical department of Harvard says: "The Medical Department of the University is established in Boston, in order to secure those advantages for Clinical Instruction and for the study of Practical Anatomy which are found only in large cities. There are hospital visits or operations daily.—The Massachusetts General Hospital: During the past year 2,756 patients were treated in the wards, and 17,925 in the out-patient department. Patients are visited by the students with the attending physicians and surgeons, on four days in the week. City Hospital: during the past year 5,368 cases were treated in its wards, and 12,733 in its various out-patient departments. The medical wards always contain many cases of acute diseases, and changes are taking place constantly. Diseases of the eye, the ear, and the skin are largely treated in the out-patient department. Clinical instruction to the students is given by the physicians and surgeons twice a week." Still, Ann Arbor, according to Drs. Herdmann and Vaughan, "sustains a more efficient clinic than is furnished by almost any other medical college in the country, not excluding those of the cities!" If further testimony were needed, I might cite other Boston hospitals, to every one of which the medical students of Harvard have access, and in which they receive clinical instruction, namely, the Boston Dispensary, a public charity where 42,488 patients were treated during the past year; the Mass. Charitable Eye and Ear Infirmary, 9,000 patients yearly; the Marine Hospital at Chelsea; the Free Hospital for Women; the Children's Hospital, and the Carney Hospital, besides one or two others. Then, for another example, let us see how Ann Arbor compares with the Medical Department of the University of Pennsylvania. "At the University Hospital during 1887, there were treated 8,832 cases, representing almost all of the known medical, surgical, and gynæcological affections. Attendance on the clinical instructions given in its ampitheatres and its wards is a part of the daily duty of the students, and ample opportunities are afforded them to gain a personal and practical acquaintance with clinical medicine, surgery, gynæcology, and the specialties." In addition the Philadelphia Hospital, where 8,977 cases were treated last year, the Pennsylvania Hospital, the Children's Hospital, and the German Hospital, are open to students, and in one or another clinics are held daily. Any graduate of either of the above colleges will fully substantiate these statements. The hospitals at Ann Arbor, with 917 chronic cases treated from Oct. 1, 1888, to May 24, 1889, hardly compare favorably with the above, Drs. Herdman and Vaughan to the contrary notwithstanding.

It is needless to multiply instances wherein the argument presented by these two gentlemen may be combatted. The Rush Medical College, Chicago; Bellevue and College of Physicians and Surgeons, New York; the University of Minnesota, St. Paul; Detroit Medical College, with the clinical advantages of St. Mary's Hospital; the Long Island College, Brooklyn, all are examples.

Dr. Herdman says, further: "Of the surgical cases that were presented during 1883-84, the hospital records show a very wide range of surgical disorders, illustrating almost every form of surgical practice." Of the 917 cases registered during this past year, 335 were surgical (MacLean's), 344 eye and ear (Frothingham's), 30 nervous diseases (Herdman's), and 208 general diseases of a chronic character. The surgical cases have consisted of urethral strictures, cystitis, malignant tumors, such as cancer of lip, face, breast, rectum and articulations; necrosis; destructive inflammation of joints, especially of the knee and commonly known as "white swelling;" chronic osteitis, and periostitis. Of fractures, dislocations, sprains, burns, contusions, abrasions, gunshot wounds, etc., there is no record, for the simple reason that fresh cases of this description are never seen at the clinics. Occasionally it has happened that the surgeon in charge has operated before the class upon a patient who, years previously, sustained an injury similar to one of those enumerated; but it has invariably been the case that the resulting trouble, which the operation is designed to relieve, is of a chronic character, and, therefore, is not to be classed under the head of acute surgical cases. Acute cases must always be treated upon the spot, and Ann Arbor, or the immediate surrounding country does not and cannot furnish these important adjuncts to a complete medical training. The 208 cases referred to as general chronic diseases include affections of the heart, lungs, viscera, etc., such as may be found in any hospital. The clinic of nervous diseases, presided over by Dr. Herdman, has had just 30 cases since last October—a period of eight months, as against 366 (to take one or two examples), which appeared before the clinics of the University of Pennsylvania during the same length of time; 279 treated in the wards, and 439 in the out-patient department of the City Hospital, Boston, to which the Harvard medical students had access, and 805 cases (during twelve months) at the Philadelphia Hospital, open to students of the University of Pennsylvania. Of these cases here at Ann Arbor, with possibly one or two exceptions, all have been chronic cases of long-standing; 5 were of epilepsy, 14 recorded simply as "nervous diseases," 2 neurasthenia, 1 each of loss of motion in limb, paraplegia, degeneration of spinal cord, sclerosis, chronic lead-poisoning, neurosis affecting spine, atrophy, infantile paralysis, and paralysis agitans. Of these 7 were reported as improved, 5 not improved, 16 no report made, and 2 "scared and would not remain." At the University of Pennsylvania, during the preceding twelve months, the list of nervous complaints treated embraces almost every possible phase of this branch of physician's work, both acute and chronic, from alcoholism to vertigo, including insanity, apoplexy, delirium tremens, dementia, hemi-chorea, laryngismus stridulus, mania, meningitis, sunstroke, hysteria, etc. Now let us turn to the surgical record and see if the cases brought before the students are such as to warrant the statement that "at Ann Arbor there has been sustained a more efficient clinic than is furnished by almost any other medical college in the country. The

University of Pennsylvania Hospital will again serve as a comparison. Total recorded cases 1887-88, 780, including abrasions, 11; amputations, 30; trephining, 4; excisions, 15; burns, 19; dislocations, 10; fractures, 27; hernia, 19; sprains, 69; synovites, 21; wounds, 107. At Ann Arbor: Excisions, 1; amputations, 3; balance, 0. At the City Hospital, Boston "the opportunities for students to see fractures, injuries and traumatic cases of all kinds are excellent, since, on an average 800 street accidents are yearly treated." The surgical operations performed before the Harvard medical students during the year 1887-88 numbered 953, which included amputations, 81; excisions, 13, for gunshot wounds, 10; fractures, 27; dislocations, 12; wounds, 130. It cannot be denied that as thorough a knowledge of acute surgical cases as clinics afford is absolutely necessary to a young physician that he be not handicapped at the very beginning of his professional career. His knowledge of practical anatomy would undoubtedly assist him very materially in minor surgical cases or in determining the amount of damage that would result from a wound; but as his opportunities at Ann Arbor have been so meagre and, in the majority of cases, his practical experience of acute surgical cases requiring immediate action has been nil, it may be readily seen that he is confronted by serious difficulties which a more fortunate member of the profession—a graduate from a college which offered the very facilities in which Ann Arbor is deficient—would find no difficulty in overcoming. Of equal importance is a thorough knowledge of disease in its acute form. In the hospitals at Ann Arbor such complaints as malarial and typhoid fevers are almost an unknown quantity, there having been but one or two cases in the wards in half a dozen years; and such knowledge as the student is able to gain of these and kindred disorders, must be obtained entirely from text books, he having no opportunity whatever to receive bedside instruction. Again by way of contrast, at the University of Pennsylvania Hospital last year there were treated 55 cases of fever, the students receiving instructions, in sections of six, from the physician in charge, at the patients' bedside. At the Philadelphia Hospital during the same period, there were treated 56 cases of typhoid, 8 of remittent, 7 of simple continued, and 212 of intermittent fever. At the City Hospital Boston, during the year, there were treated: 82 cases of scarlet fever, 245 of typhoid, 60 of intermittent, 6 of malarial, and 1 of septic, fever. Ann Arbor, 0.

Then of diphtheria, pneumonia, pleurisy, quinsy, gastritis, peritonitis, effects of poisons, etc., from a practical standpoint, the students here are entirely ignorant, for the simple reason that they never come in contact with such cases during their three years' stay.

The statement by Dr. Herdman, "In spite of the unsanitary condition of our hospitals, our death rate has been less than one-half that of any other hospital with which we have compared them," is hardly worthy of notice. A patient suffering from an incurable *chronic* disease, if he must die, naturally prefers to die among friends, or among familiar scenes, rather than in a public hospital, especially if the hospital happens to be in a confessedly unsanitary condition. If even a small proportion of the cases were of the *acute* order, a comparison of the death rate with that of other hospitals might be of some value.

Then, too, it was said that "the cost to the state of sustaining a patient at Ann Arbor is but little more than one-third of the amount necessary to keep a patient for the same length of time in the Harper Hospital at Detroit."

Just why a comparison should be made between a charity hospital and one that is in many respects a private institution, it is difficult to understand. There are many hospitals in the country which are managed in the same way as this one at Ann Arbor where the cost of maintaining patients is no more, and in some cases even less (as certain figures before me fully testify), than here.

Dr. Vaughan's argument is a rather peculiar one in many respects. He says: "The urine and the blood must be examined by the chemist and the tissues by the pathologist. Laboratories for these purposes are in Ann Arbor. If the hospitals were in Detroit these facilities would have to be duplicated." If the urine and blood of a patient must be examined and analyzed by a *chemist* and special laboratories deemed necessary for a proper performance of the operation, I am led to ask why it is that so much stress is laid by Dr. Vaughan upon the analysis of urine by the students under his charge as a part of their regular course. Each student cannot hope to become a thorough chemist in addition to becoming a physician, nor can he support a special laboratory for such analyses as these. He is supposed to thoroughly master the intricacies of urine analysis at least, and for the carrying out of this a few test tubes, microscope, spirit lamp, reagents and water bath, are all that is necessary, while as far as blood analysis is concerned a physician in large practice would hardly have occasion to employ this means of diagnosis once in a lifetime. Tissue for the pathologist to examine is sent to Ann Arbor now from all parts of the State. Why could not the same be done from Detroit if the clinics were located there? The so-called Pathological Laboratory of the University is a small room that has been fitted up in a building devoted to an entirely different purpose, containing a few instruments and chemicals which might be duplicated at small cost should it be necessary. Again, it has been said in opposition to the proposed removal to Detroit, that students would lose the advantages of the University library; that no medical books would be at their disposal other than those owned by themselves; that books of reference would be wanting. This argument is on a parallel with that quoted above. In the first place, it is the unanimous verdict of all the students who draw medical books from the library, that in almost every instance the books are so antiquated that they do not keep pace with the advance of medical science. With the possible exception of those on law, there is no class of books which must be kept up to date so rigidly as medical works. The onward course of medical investigation is such that new editions are absolutely necessary for even a partial understanding of debated questions, and these the student as well as the practitioner must have. I leave it to be judged if the University library, perfect as it may be in other respects, makes any approach towards filling this want. In surgery the latest edition

of Agnew to be had, is that issued in 1883, since when there have been two new editions published: Miller's Surgery, 1853 and 1856; Holmes' 1871 and 1876; Gross' System of Surgery, 1862; Hamilton's Surgery. 1865; Ashurst's Principles and Practice of Surgery, 1881. On pathology, one finds Paget, 1861, and no newer edition, while Wood's Materia Medica, a standard textbook used to-day perhaps more generally than any other, and the very book which is recommended to students by the professors, may be had there, but the latest copy is of the edition of 1856—somewhat behind the needs of the present day. The greater portion of the medical books are on a par with these, while many famous authors are not represented at all—not even by antiquated editions. The Detroit Medical Association Library, on the contrary, has upon its shelves the latest publications in the medical line, and were the clinics in Detroit an arrangement might easily be entered into whereby students could have access to them. The subject of building a new hospital at Ann Arbor, at a cost of $75,000, is one that should interest the people of the entire state. As $50,000 of that amount has been voted by the legislature, it seems but reasonable that one should inquire into the advantages that would accrue to the state at large, and to the medical department as now managed from such action. That the city of Ann Arbor would derive benefit is undoubtedly true, which probably accounts for the bitterness indulged in by the local press against those who are endeavoring to put the depart nent upon an equal footing with those of other cities by affording proper clinical advantages; but where the patients would come from to fill the hospital no one can tell. Should the hospital be built the percentage of chronic cases would perhaps increase; but it is not the *chronic* class that is wanted as much as the *acute*, and were twenty hospitals to be built here the medical department would be no better off than it is to-day.

Dr. Vaughan is a chemist, and professor of sanitary science and physiological chemistry, and has no clinical work whatever under his charge. The two branches mentioned are studied and completed during the Freshman year, while the laboratory work under his direction occupies but one semester and is either completed during the first year or the first part of the second.

Dr. Herdman is the professor of practical anatomy and of diseases of the nervous system. Apparently by some the idea is held that the medical department here is equal if not superior to Harvard, or the University of Pennsylvania, or of the New York colleges, while the truth of the matter is it can in no way compare with the Eastern colleges, and as matters now stand, is no more or no less than a second-rate school.

This letter is written from a student's standpoint and by one who merely voices the general complaint among his fellows that the clinical advantages are so inadequate that it is impossible to pursue the study of medicine at Ann Arbor with any prospect of that ultimate success which every conscientious student strives for.

It should be the duty of every person who believes in a *thorough* education for students of medicine at the University of Michigan—and such an education may only be gained where there are clinical advantages of a high order—to raise their voice in favor of putting the department on a par with those of other cities, which can only be done by giving it the facilities for clinical instruction which are to be found in a large city, and not in a country town like Ann Arbor.

MEDICAL STUDENT.

Ann Arbor, Mich., June, 1889.

BRITISH CLINICAL REGULATIONS.

Now that correspondence is in order respectiug the Medical Department of the Michigan State University, perhaps,a word or two about some of our medical schools might be of interest to your readers. Every examining board or university in these British Isles, before admitting a candidate to the final examination for their diplomas or degrees, respectively demand proof that the candidate has attended clinical instruction for at least eighteen months in a hospital having at least 80 beds. The Royal College of Surgeons, of London, have this regulation: "No Metropolitan Hospital is recognized which contains less than 150, and no Provincial or Colonial Hospital which contains less than 100 patients."

We have one university having its medical department situated at a distance from the same, viz., Durham University, the medical school of which is located at Newcastle on the Tyne, about 20 miles away, Durham being a town of only 14,000 inhabitants, whilst Newcastle has a population of nearly 150,000. In my humble opinion it would be better for all parties, the people and the profession, if the University only, assumed the power to grant degrees, admitting to its examinations all who had complied with its requirements. I do not mean the University to do all the teaching also, and to crush and annihilate the other institutions, but rather let the other schools go on with their good work, the university only to examine all.

W. WILLIAMS.

OSWESTRY, ENGLAND, June 4, 1889.

POTASSIUM PERMANGANATE IN ANTHRAX.

DR. HURD'S recent paper "On Carbuncle," suggests the repetition of some remarks contributed to The Practitioner (Los Angeles, Cal.), some years ago. The method of treatment I then suggested was, the injection of a strong solution of potass. permang. into the cribiform openings of the anthrax. Unlike carbolic acid and other antiseptics, it can do no possible harm, and, has accomplished wonders on many occasions. If the openings are not fully established, it is an easy matter to locate their site. If open, so much the better. In either case, introduce the syringe toward the core, and inject all possible of the solution. If suppuration is already present, press out as much matter as possible without producing pain. I inject the carbuncle once or twice daily and cover with hot water dressings, plain, or with permanganate added.

C. M. FENN, M. D.

San Diego, Cal.

The Medical Age.

A SEMI-MONTHLY REVIEW OF MEDICINE.

B. W. PALMER, A. M., M. D., Editor.

—Published By—

GEO. S. DAVIS, Medical Publisher, Box 470.

DETROIT, MICH., JUNE 25, 1889

Editorial.

THE TREATMENT OF INFANTILE DIARRHŒA.

This is a subject that annually obtains attention, and with little practical result, apparently, so far as prophylaxis and better treatment is concerned, since the measures advocated for the most part are mere repetitions and transmogrifications of the old and so-called "classic" methods which demand astringents, opiates, and anti-acids.

Recently antiseptics have been added to this repertory, which is a tacit admission of its inutility; and when we review the etiology and pathology of this class of complaints, the admission becomes a positive certainty.

Ignoring specific fluxes such as cholera infantum, and those arising from organic lesions, the question may be asked, What have we to deal with?

In the majority of instances the glib assurance that all diarrhœas are dependent upon the presence of bacteria, is of little aid to either diagnosis or treatment. If microbes are, as often asserted, the vicious element, nevertheless the same causes, results and sequels confront us as did before these infinitesimals obtained to our knowledge. Further, it is a moot question whether micro-organisms are the factors of production, or merely the derivatives thereof. Like the poor, they are "always with us;" and since the definite results of the disease are known, as well as the chief factor in its rise (suppressed digestive activity), it seems almost an act of folly to grope in the dark and formulate a theory from an unknown cause, to the end of securing an equally unknown specific.

To a proper understanding of summer fluxes must be brought familiarity with the physiology of infantile digestion: with this, the microbe may be practically or wholly ignored. In nurslings there is always a primary and normal tendency to looseness of the bowels, owing, first, to the nature of the food ingested, and second, to the fact the larger intestine, whereby the dejections might be depleted in part of their fluid constituents, are inactive to absorption—digestion and absorption being strictly confined to the stomach and lesser bowel. Digestion in the infant, to a certain extent, is rudimentary; little ptyaline is excreted before the sixth or eighth month after birth; and any food substituted for normal mother's milk that contains starch, is necessarily more or less irritative, since the particles of this product pass through the intestines almost untransformed. Herein is the objection to ordinary bottle-feeding, cow's milk included, and artificial foods of all classes.

Every non-organic and non-specific diarrhœa, reflex causes excluded, no matter what the inciting factor—whether heat, cold, improper nutriment, bacteria, ptomaines, etc.—obtains only with the *sine qua non* of suppression of digestive activity. The old Scottish aphorism, of the "fear of God" in connection with "open bowels," expresses theologico-medically a physiological necessity, equally applicable to threatened constipation or to flux, since it is intended to convey the idea of maintenance of perfect digestive and excretive harmony.

Diarrhœa, regardless of inception, is neither more or less than a flux established by Nature in an attempt to rid the economy of some effete, irritating, or poisonous matter, and primarily is a salutary process that becomes morbid only by perseverance and extension: in other words, it is "a good servant," but equally "bad master."

Without going into minutiæ and consideration of the subdivisions that pertain to classification of the ordinary summer complaints of infancy, the matters of real importance resolve themselves as follows:

In diarrhœa we have a flux that, harmless or salutary in its inception, may so far overstep physiological boundaries as to be detrimental and, perhaps, dangerous.

When the latter obtains, the flux possesses a double significance in that it is not merely depleting the economy alone, but it also saps the source of supply by interfering with the absorption of nourishment. It is now a malady that, practically, at least, "burns the candle at both ends," and the accessions of cause may be more rapid than the physiological attempts to remove it.

Pathological changes other than from inflammation of the gastro-intestinal mucous membrane due to irritation, are indefinite; but ptomaines may be developed indirectly through chemical changes occurring within the economy, or by direct introduction from without.

Admitting a cause which the diarrhœa seeks to mitigate, by what rule of thumb or therapeutical philosophy, is the malady to be remedied by efforts that tend to repress the flux to the retention (and absorption) within the economy of the very effete, noxious, and perhaps toxic, factors that are the source of the disturb-

ance, and in the removal of which Nature is engaged?

By what measurement of common sense may the exhibition of an antiseptic, *as such*, be expected to combat a malady dependent upon mal-nutrition and non-assimilation, since antisepsis is merely the antithetic foe of fermentation and putrefaction, and deals with a product instead of a definite cause? It may mitigate as regards virulence: it may tide over until Nature can recuperate sufficiently to perform her own work: but it can by no stretch of the imagination be considered to remove the cause.

To secure a condition inimical to the diarrhœa, is demanded perfectly healthy digestion and absorption. To retain this condition, or to prevent the accession of diarrhœas, food precisely suited to the powers of the digestive organs must be supplied, and regularly, and moderation insisted upon.

In diarrhœa, as already mentioned, we are concerned first of all with perverted digestion, and irregular, gastric, pancreatic and biliary action—the two last being mutually dependent upon each other—and the absorption of ptomaines or kindred poisons, which Nature is vainly attempting to exclude from the economy. The nursling receives into its stomach a quantity of milk which is speedily transformed into hard indigestible curd, that, passing through the intestines, provokes irritation and inflammation; further we may have retention in part, with resultant fermentation and putrefaction. For this very reason, and also from the fact that it contains starch, cow's milk and the patented foods are objectionable as nourishment for infants, though so far as the former is concerned the evil may in great measure be mitigated by dilution with water and peptonization.

All ordinary infantile diarrhœas are best relieved, when circumstances will permit, by a thorough cathartic, one that will clear the primæ viæ of all fermenting, putrid, and irritating substances, removing the source of poisoning. Calomel, perhaps, best supplies the indications, but should always be given in full doses. In diarrhœa lienteria, pancreatin is always demanded, following the cathartic, being the "only remedy," as LE SAGE justly remarks, "that does any good," and should be administered in connection with an alkali in order to neutralize the acids of the stomach and permit the ferment to exercise its effect where it is most needed, viz., in the duodenum.

When the dejections of the infant are frothy acid, fatty, yellow, perhaps accompanied with griping, the fault manifestly is lack of intestinal digestion, and pancreatin alone can restore the physiological balance. *Per contra*, if the passages are abundant in curd, it is the stomach that is deficient, and pepsin is demanded. Again, light colored dejections denote deficency in biliary products which is always a concomitant of imperfect pancreatic secretion; but if dark and green there may be an excess of biliary and pancreatic fluid, but lack of gastric digestive activity. These facts must be the guides for the administration of remedies.

In all diarrhœas then, wherein there is manifest deficiency of intestinal digestion, pancreatin is the remedy of greatest value and utility; but if the stomach is at fault, it is evident that pepsin is demanded, in which case, to be effective it should be employed in large doses, fully twice those generally laid down in text books. Often times, too, the indications are such that both these ferments are desirable, in which case they should never be given together, but pancreatin exhibited, invariably before feeding, and in an alkaline medium, and pepsin a few moments after feeding, in an *acid* medium.

Recently we have obtained the best results from such treatment, though it must be admitted in cases of unusual gravity, when collapse threatens, that coto and wild yam are sometimes of value to check the flux, the digestive ferment following to secure proper digestion and nutrition. So long ago as 1856, JOULIN and CORVISART (Rev. Med. Chir. de Paris) outlined this mode of treatment, and claimed the happiest results therefrom; and more recently it was advocated by TROUSSEAU, PIDOUX, BARTHEZ, and RILLIET, of France, and ELLIS and DAVIDSON of the United Kingdom. Later still, Dr. J. MILNER FOTHERGILL (Handbook of Practice, p. 40) remarked of pepsin: "Its utility in the treatment of imperfect digestion, and diarrhœa in children, is certain." Prof. J. LEWIS SMITH (Prof. Dis. Children, Bellevue Hosp. Med. Coll.—Archiv. Pediatric, 1866, p. 518) expresses exactly the same opinion. Prof. FREDERICK JOHN FARRE (Pareiras Mat. Med. and Therap., p. 943) commends pepsin "*very highly in cholera infantum and summer complaints of children.*" And BARTHOLOW declares (Mat. Med. and Therap., p. 68): "Very great success has been attained in the treatment of the *diarrhœa of infants* by pepsin. * * * The motions will be quickly changed in character, and the nutrition of the child improved, by giving it immediately after each supply of food." He further recommends (Naphey's Medical Therapeutics, p. 395) the employment of peptonized milk or milk gruel for food in these cases, in which he is supported by WILSON FOX (Diseases of Children, ii, p. 821), who considers "pepsin invaluable in gastralgia and all irritative states of intestinal and stomach and mucous membranes."

With such evidence and with the physiological knowledge that at present obtains, it is evident the digestive ferments are too little

studied or employed as a means of combatting infantile diarrhœas; further they are almost invariably employed in too small doses.

In diarrhœal disorders, lactic acid has obtained some celebrity because of its supposed antiseptic effect, whereas the real secret is, its aid to gastric digestion and the production of pepsin in the stomach; and for this reason, it is an excellent medium for the exhibition of the gastric ferment.

Other remedies may be employed as occasion demands, such as antacids—the best being cerium oxalate and bismuth subcarbonate, which act mechanically by spreading over inflamed surfaces; and they may be advantageously combined oftentimes with minute doses of ipecac, camphor mono-bromide, and alteratives,—such as baptistin, euonymin, irisin and leptandrin, and where there is relaxed condition of the intestinal mucosa hydrastin. In atonic condition of the bowels, coto bark is often valuable, it being antiseptic, tonic and alterative, rather than astringent, with specific action upon the mucous follicles of the lesser intestines. Where antiseptics seem advisable, powdered charcoal, mercuric biniodide, carbolic acid, and naphthalin are alike valuable, as also are chloral and antipyrin which are beside anæsthetic to the intestines, reducing or suspending peristaltic action. Opium is too uncertain a remedy, since its administration cannot be graduated with sufficient nicety to secure anti-peristalsis without narcosis; moreover, it is never without elements of danger to nurslings.

When the flux is of dysenteric character, and rapidly depleting as regards serum, coto exerts a definitely repressive action that is at the same time antiseptic, which places it at the head of remedies indicated, and in its class: it is specific, in that it neutralizes the toxicity of ptomaines, an effect that is enhanced by the addition of wild yam. In this class of diarrhœas, however much they may be benefited by a mercurial cathartic, the exhaustion produced by the discharge is often so rapid as to contraindicate the delay incident thereto; here coto exercises its best effect, especially if followed by alteratives in full doses in connection with both pancreatin and pepsin, little nourishment being allowed, that little but three or four times a day, well diluted with boiled water, and duly pancreatized. At night all feeding should be interdicted, though cold boiled water sweetened with loaf sugar, may be allowed. Much as mother's milk is desired in these cases, the very anxiety of the parent, oftentimes, exerts a most pernicious effect upon the mammary secretion, therefore, in all serious diarrhœas, hand-feeding is best substituted. Apropos of this it may be remarked that in the Orphan Asylum at Rochester, N.Y. fatalities from diarrhœa altogether ceased by interdicting food except at infrequent and regular intervals. The order was "feed only every three hours during the day, not at all at night, but allow water at all times," but the nurse by some misunderstanding fed the little ones only thrice daily. The moral is obvious.

G. A. S.

THE PREVENTION OF TUBERCULOSIS.

Although much has been written on this gravely important subject, the views of many physicians as to the contagiousness of tuberculosis, and the best means for its prevention, are not fully advanced to the standards of present knowledge. We therefore with pleasure give editorial prominence to the detailed and practical report by DRS. T. M. PRUDDEN, H. M. BIGGS, and H. P. LOOMIS, pathologists to the Board of Health of New York City, who having been requested to formulate a brief and comprehensive statement regarding the contagiousness of tuberculosis and the means of protection therefrom, have submitted the following.

The disease known as tuberculosis and,when affecting the lungs as, pulmonary tuberculosis (consumption), is very common in the human being and in certain of the domestic animals, especially cattle. About one-fourth of all the deaths occurring in the human being during adult life are caused by it, and nearly one-half the population at some time in life acquire it. The disease is of the same nature in animals and in man, and has the same cause.

It has been proven beyond doubt that a living germ, called the tubercle bacillus, is the cause, and the only cause, of tuberculosis. It does not seem necessary to state the facts upon which this assertion is based, for the observations first made by Robert Koch, in 1882, have been confirmed so often and so completely, that they now constitute one of the most absolutely demonstrated facts in medicine.

Tuberculosis may affect any organ of the body, but most frequently first involves the lungs. When the living germs find their way into the body they multiply there, if favorable conditions for their growth exist, and produce small new growths or nodules (tubercles) which tend to soften. The discharges from these softened tubercles, containing the living germs, are thrown off from the body. In pulmonary tuberculosis these discharges constitute, in part, the expectoration. The germs thus thrown off do not grow outside the living human or animal body, except under artificial conditions, although they may retain their vitality and viruleuce for long periods of time, even when thoroughly dried. As tuberculosis can only result from the action of these germs, it follows from what has just been said, that when the disease is acquired, it must result from receiving into the body living germs that have come from some other human being or animal affected with the disease.

It has been abundantly established that the disease may be transmitted by meat or milk from tubercular animals. The milk glands in milch cows often become affected with the disease when their lungs are involved, and the milk from such animals may contain the living germs, and is thus capable of producing the disease. Among stall-fed dairy cows 20 or 30 per cent. are sometimes found to be affected with the disease. Tubercular animals are also frequently killed for food; their flesh sometimes contains the germs, and if not thoroughly cooked is capable of transuitting the disease. Boiling the milk, or thoroughly cooking the meat, destroys the germs. Although the meat and milk from tubercular animals constitute actual and important sources of danger, the disease is acquired, as a rule, through its communication from man to man.

Tuberculosis is commonly produced in the lungs (which

are the organs most frequently affected) by breathing air in which the living germs are suspended as dust. The material which is coughed up, sometimes in large quantities, by persons suffering from consumption, contain these germs, often in enormous numbers. This material when expectorated frequently lodges in places where it afterwards dries, as on the streets, floors, carpets, clothing, handkerchiefs, etc. After drying, in one way or another, it is very apt to become pulverized and float in the air as dust.

It has been shown experimentally, that dust collected from the most varied points, in hospital wards, asylums, private houses, etc., where consmptive patients are present, or have been present, is capable of producing tuberculosis in animals when used for their inoculation. Such dust may retain for weeks its power of producing the disease. On the other hand, dust collected from rooms in institutions or houses that have not been occupied by tubercular patients does not produce the disease when used for the inoculation of animals.

These observations show that where there are cases of pulmonary tuberculosis, under ordinary conditions, the dust surrounding them often contain the tubercle bacilli; and persons inhaling the air in which this dust is suspended may be taking in the living germs. It should, however, be distinctly understood that the breath of tuberculous patients, and the moist sputum received in proper cups, are not elements of danger, but only the dried and pulverized sputum. The breath and moist sputum are free from danger, because the germs are not dislodged from moist surfaces by currents of air. If all discharges were destroyed at time of exit from the body, the greatest danger of communication from man to man would be removed.

It then follows, from what has been said, that tuberculosis is a distinctly preventable disease.

It is a well-known fact that some persons, and especially the members of certain families, are particularly liable to tuberculosis, and this liability can be transmitted from parents to children. So marked and so frequent is this liability, and so frequent is the development of the disease in particular families, that the affection has long been considered hereditary. We know that tuberculosis can only be caused by the entrance of the germ into the body; and that this transmitted liability simply renders the individual a more easy prey to the living germs when once they have gained entrance.

The frequent occurrence of several cases of pulmonary tuberculosis in a family is, then, to be explained, not on the supposition that the disease itself has been inherited, but that it has been produced after birth by transmission directly from some affected individual. Where the parents are affected with tuberculosis the children from the earliest moments of life are exposed to the disease under the most favorable conditions for its transmission, for not only is the dust of the house likely to contain the bacilli, but the relationship also between parents and children, especially between mother and child, are of that close and intimate nature especially favorable for the transmission by direct contact.

If, then, tuberculosis is not inherited, the question of prevention resolves itself, principally, into the avoidance of tubercular meat and milk, and the destruction of the discharges, especially the sputum, of tubercular individuals. As to the first means of communication, those measures of prevention alone answer the requirements which embrace the governmental inspection of dairy cows and of animals slaughtered for food, and the rigid exclusion and destruction of all those found to be tubercular.

For the removal of the second means of communication—*i. e.*, the sputum of tubercular individuals—the problem is simple when the patients are confined to their rooms or houses; then wooden or pasteboard cups with covers should always be at hand for the reception of the sputum. These cups are supported in simple racks, and at least once daily, or more frequently if necessary, should be removed from the racks and thrown with their contents into the fire.*

*A cheap and efficient cup answering this purpose is now on the market and is supplied by druggists.

The disposition of the expectoration of persons who are not confined to their rooms or homes is a far more difficult problem. The expectoration certainly should not be discharged on the street, and the only practical means for its collection seems to be in handkerchiefs, which, when soiled, should at the earliest possible moment be soaked in a solution of five per cent. of carbolic acid and then boiled and washed. Handkerchiefs thus soiled are exceedingly dangerous factors in distributing tubercle bacilli; for when the sputum becomes dry, it is easily separated in flakes from the cloth and then soon becomes pulverized and suspended as dust.

It becomes evident from what has been said, that the means which will most certainly prevent the spread of this disease from one individual to another, are those of scrupulous cleanliness regarding the sputum. These means lie largely within the power of the affected individual. It is, furthermore, to be remembered that consumption is not always, as was formerly supposed, a fatal disease, but that it is in very many cases a distinctly curable affection.

An individual who is well on the road to recovery may, if he does not with the greatest care destroy his sputum, diminish greatly his chances of recovery, by self-inoculation.

While the greatest danger of the spread of the disease from the sick to the well is in private houses and in hospitals, yet, if this danger is thoroughly appreciated it is, for the most part, quite under control, through the immediate destruction of the sputum and the enforcement of habits of cleanliness. But in places of public assembly, such as churches and theatres, particularly the latter, the conditions are different, and safety would seem to depend largely upon a dilution and partial removal of the floating and possibly dangerous dust by means of adequate ventilation.

Rooms in private houses and hospital wards that are occupied by phthisical patients should from time to time be thoroughly cleaned and disinfected, and this should always be done after they are vacated, before they are again occupied by other individuals.

Steamship companies should be obliged to furnish separate apartments for consumptive persons, so that no person in the exigencies of travel need be forced to share his room with one who might be a source of active danger to him.

We desire especially to emphasize the following facts:

1st. That tuberculosis is a distinctly preventable disease;

2d. That it is not directly inherited; and

3d. That it is acquired by the direct transmission of the tubercle bacilli from the sick to the healthy, usually by means of the dried and pulverized sputum floating as dust in the air.

The measures, then, which are suggested for the prevention of the spread of tuberculosis are:

1st. The security of the public against tubercular meat and milk, attained by a system of rigid official inspection of cattle;

2d. The dissemination among the people of the knowledge that every tubercular person may be a source of actual danger to his associates, if the discharges from the lungs are not immediately destroyed or rendered harmless; and

3d. The careful disinfection of rooms and hospital wards that are occupied or have been occupied by phthisical patients.

MICHIGAN STATE MEDICAL SOCIETY—SESSION OF 1889.

"A pleasant and profitable meeting, one that socially and scientifically was in every particular a success," appears to be the general verdict of those who attended the recent medical convention at Kalamazoo. A special feature of the Society was the transaction of work by means of sections, three in number, respec-

tively devoted to Surgery, Obstetrics and Diseases of Women, and General Medicine.

Over thirty papers were presented, embracing a wide range of topics; and not the least interesting was the Surgical Address, delivered by the veteran DR. HERMAN KIEFER, of Detroit, in which was briefly sketched the wonderful strides made by the science during the last half century—an advance made possible by the two greatest discoveries of any age, viz., anæsthetics and antiseptics.

"When I call to mind," said DR. KIEFER, "the time when the poor sufferer was brought into the amphitheatre trembling with fear; when I remember the shy and anxious look he cast on the instruments, covered by a linen cloth; the preparations to keep him quiet and secure rest during the operation; the manual force of three or four assistants required; and then at the first cut of the knife the heart-rending cry ringing through the amphitheatre and the entire building, reaching perhaps across the street; the poor wretch writhing on the operating table in agony, and driven to despair by excrutiating pain; trying to escape his tortures, rising with superhuman strength, and held in the air by four or five pairs of stout arms; bleeding with a limb perhaps half severed from his body and the surgeon following and holding on anxious to finish the operation: I say, when I think of that time, I cannot but pay my tribute of gratitude to those men who gave to suffering humanity the great discovery sought after for thousands of years."

Anent the rise of anæsthetics, the speaker referred to the first employment thereof in Freiburg, by PROF. L. STROMEYER, who was one of the most learned, skilled, and genial surgeons of the time. Each and every day he spoke of the reports of the new discovery, eager to see them verified, but too anxious and conscientious to himself make the experiment. "One day he was surprised by a communication from three of his students, stating that they had been experimenting on cats for ten days, had etherized them to insensibility, and had operated on them without any evidence of pain, and without any untoward result. The students were all full of enthusiasm, but the professor, although greatly astounded, meditated awhile, then looking round at his audience said, 'Gentlemen, do not forget that men are not cats.' Thereupon one of the students offered himself to be placed under the influence of ether to test its effects. It was only after considerable hesitation that STROMEYER assented. Everything went well, and the next day the first operation was performed by the professor under the influence of an anæsthetic. It was a grand success—Chopart's operation—and I think that STROMEYER felt like a general who had won a great victory."

In antiseptics, surgery celebrates its greatest modern triumph, and the thanks of mankind will ever be due to SIR JOSEPH LISTER.

"SIR ASTLEY COOPER held 'that every operation was dangerous and if possible to be avoided.' Formerly, while the surgeon performed an operation with all possible skill, with all the means and resources at his command, after 24 or 36 hours, fever set in, suppuration followed, and death by pyæmia or septicæmia was only too often the result. But there was not even need of a severe operation to bring about such dire results; a slight flesh wound often caused erysipelas, or tetanus, with lethal exit. Shall I mention the hospital at Munich, which I visited while a student and which was a hot-bed for disease; where pyæmia was endemic; where everyone admitted with a trifling wound, was in imminent danger of erysipelas; where it was considered fortunate when, after weeks of suffering, the poor patient barely escaped with his life and a constitution broken down forever? Shall I speak of the lying-in hospitals of Prague and Vienna, where the unfortunate women had to go through puerperal fever in its worst forms, with an appalling rate of mortality? And when I visited the same places again in the years 1883–1886, everything was changed; miraculously those hospital scourges had vanished. PROFESSOR MESSBAUM, director of the surgical clinic of Munich, wrote ten years since: 'the clinic which I have been directing for 19 years was an excellent field for experiments with Listerism. Pyæmia had been at home for decades. All complicated fractures, nearly all amputations, had to succumb to it. In 1872, hospital gangrene made its appearance; and in 1874, 80 per cent. of all wounds and ulcers were affected; arteries became corroded, bones necrotic; many a robust youth with a most vigorous body was lying like a murdered man upon the dissecting table; erysipelas was to be found on every bed; healing per primam was never seen. Look at the same wards now, where the patients lie without pain, cheerful, healthy looking. No erysipelas, no phlebitis, no hospital gangrene can be seen; pyæmia has disappeared; complicated fractures are healing wonderfully; injuries to the head, which were nearly all fatal by pyæmia, are getting well within a few days; plastic operations are uniting by first intention; the rate of mortality is reduced 50 per cent. On the dissecting table, only suicides, the accidentally killed, and those who have died from old age, tuberculosis, or carcinomatous diseases, are to be found,'"

DR. GRONER, of Big Rapids, read a paper on Abscess, which severely criticized the treatment by aspiration and irrigation.

DR. HENEAGE GIBBS, of Ann Arbor, also presented an interesting and exhaustive review of the nature of recurring carcinoma, which was illustrated with photographs of microscop-

ical sections. During the discussion the difficulties of reconciling pathological theory with the facts of clinical experience was alluded to by DR. HERDMAN, who reported a case of recurring carcinoma in which the secondary metastasis occurred in the liver; from the left breast to the liver is a difficult route to outline, especially when, as in this case, all the lymphatic glands are found free from injection.

DR. GREENSHIELDS, of Romeo, described how he had been summoned hastily to see a woman whom he found in a house of one room, 14 feet square, suffering from a pistol-shot wound of the abdomen. Opening up the viscus he tied all the bleeding points, secured the wounded intestine with glove-stitch, washed out the cavity, and closed the abdomen, leaving a rubber drainage tube in situ. The subsequent history of the patient was one of uninterrupted progress to complete recovery.

Space will not permit the enumeration of all the papers presented, but a few of special interest may be mentioned, viz., "Sympathetic Ophthalmia," by DR. CARROW, of Bay City; "Perityphlitic Abscess," by DR. JENKINS, of Tecumseh; "Empyæmia," by DR. WOOD, of Quincy; and "Muscular Action as a Cause of Fracture in Paretics," by DR. BURR, of Pontiac.

Nothing occurred to mar the harmony of the sessions, and the routine business, addresses, election, etc., passed off happily. Grand Rapids was chosen for the next meeting. DR. GEO. E. FROTHINGHAM, of Ann Arbor, being elected President, and DR. GEO. E. DUFFIELD retained as Secretary.

The Society decided henceforth to take no notice of medical and surgical exhibits. Any person or persons may secure rooms and exhibit their products, but such will no longer receive the official sanction of the Society, or be provided for in any way.

Among the pleasant features of the meeting were receptions given by MR. and MRS. STOCKBRIDGE, at their home, and DR. and MRS. PALMER, at the Asylum.

RESPONSIBILITY FOR DEFECTIVE DRAINS.

The British Medical Journal, June 1, 1889, notes an interesting case bearing on the responsibility of landlords for defective drainage, which clearly shows that landlords may be held answerable for dangerous imperfections in drainage. It, moreover, indicates that a tenant under such circumstances, if he can prove the injury to health from bad drainage, may obtain judgment for damages.

Such a decision is certainly encouraging to sanitarians and those interested in public health, and certainly of especial interest to tenants generally, and to physicians whose advice is frequently sought as to the relation of defective drainage to disease.

The case alluded to was as follows:

The plaintiff claimed damages from the builder of his house for alleged defective construction of the drains. He and his wife, after living some time in the house, suffered from a throat affection closely resembling diphtheria. The drains were naturally suspected, were examined, and repaired; and then action was brought against the builder, to recover compensation for the illness and discomfort consequent on his defective workmanship. In the result, the jury practically found that the drains were not properly constructed, for they gave the plaintiff a verdict for the cost of repairing them, but they declined to give him any damages for his illness. We suppose they were not satisfied that it was caused by the defects in the drains, and to lay mind such proof is always difficult. To those who have studied the subject, the coëxistence in the same house of defective drains and diphtheria would probably suggest almost irresistibly that the one was the cause of the other. But the ordinary juryman, possibly himself a plumber, or in some other way connected with the building trade, does not like to mulct a tradesman in heavy damages for defective workmanship. The logical sequel to the finding that the drains were defective would seem to have been a substantial verdict in favor of the plaintiff, but this the jury declined to give. The defendant, however, has been mulcted a substantial penalty, as the judge certified for costs on the High Court scale, considering the action a proper one to be tried in a Superior Court, thus apparently intimating his opinion that the damages awarded were inadequate.

The case is worth noting as an instance to show that persons who suffer from defective workmanship, in such important matters as the drainage of their houses, are not quite at the mercy of the builder. The plaintiff, no doubt, was put to a great deal of trouble and anxiety, and has only recovered an inadequate compensation; but the defendant has had to pay a sum which will far exceed any profit he can have made by scamping his job. We hope his fate may act as an example to "others in the like case offending," and convince them that it is not only their duty, but their interest, to carry out properly the important underground works which they contract to provide. Thanks from the public are due to the plaintiff and to others who call attention to, and bring home responsibility for, neglect in such matters, for by so doing they effectively protect not only their own health, but that of the public.

ERRORS IN EXAMINING THE HEART.

In a communication to the British Medical Journal, DR. J. M. GRANVILLE utters certain cautions regarding what he believes to be a common source of error in connection with certain conventional modes of examining the heart.

When the patient is told to cease breathing, there is usually a more or less inflated lung, whereby the contact and impulse elements of the cardiac sounds are greatly exaggerated. Again, the lung being not infrequenly distended by a deep inspiration taken hurriedly at the instant the patient is commanded to cease breathing, a mechanical obstacle is offered to the free passage of blood through the pulmonary vessels. The listener now hears, not the cardiac sounds simply unmasked by the suspension of pulmonary sounds, but the former exaggerated and distorted by the accidental physical conditions of the lungs and heart, and their surroundings in the thorax. These conditions are abnormal, for a state of forced, or even fixed inspiration, is not normal,

and the resonance induced *modifies* as well as intensifies the heart-sounds.

"The very frequent appearance in the consulting room of cases of supposed heart disease," remarks DR. GRANVILLE, "in which when examined under ordinary conditions nothing can be discovered to support the hypothesis of disease, may perhaps to some extent be accounted for by the method of examination."

Another point upon which considerable stress is laid is: "No physician is justified in affirming the existence of a morbid state until, or unless, he can satisfy himself that the known effects of change of position or the various performances of the cardiac mechanism are produced." It is a matter of no little concern that there are a large number of persons—a number that is constantly increasing—who are living lives of misery and dire expectation because they have been told "something is wrong with the heart," or that they have "heart disease," when in fact there is nothing whatever the matter with the cardiac apparatus, or merely a little sympathetic disturbance due to dyspepsia and indigestion. DR. GRANVILLE in this connection does not refer to "anæmic" sounds, which are so often misconstrued even by expert and experienced examiners, but hypothetical "valvular disease" in hearts which are in no way organically affected, not even subjects of exceptional muscular debility.

THE PURPOSE AND BENEFICENCE OF PAIN.

The physician who aspires to practical success in his profession, must be an optimist. The pessimist never yet inspired recovery, or realized the aid to the action of medicaments afforded by a hopeful, cheerful, confident, optimistic manner.

Seeing so much of the imperfections, the weaknesses and frailties of human nature, the physician naturally grows to esteem it lightly, and lapses into pessimism, when to inspire hope and courage should be his constant consideration.

It may be but little comfort to a patient to be reminded of the beneficent purpose of pain; but that it plays a most important part in the development and refinement of character, is obvious.

That it has its uses and compensations, has been recently pointed out by a writer in the London *Lancet*, and a knowledge of them should not be without interest to the physician. According to this writer, pain obviously plays a great part in the preservation of life. If fire did not cause pain in burning, if the knife could pierce the flesh without suffering, if the noisome gas caused no inconvenience to sense or brain, it is difficult to see how, with our present organization, life could be long preserved. We should be constantly courting death, and would remain in ignorance of danger until the mischief effected was irremediable. The child who burns its hand, or cuts its finger, or knocks its head against a table, or swallows some noxious mess, suffers indeed, but from another point of view may be more truly said to be learning invaluable lessons of self-preservation. Probably this, although a painful way, is the only one in which such knowledge could be acquired. In spite of the fact that experience is such a stern instructor, and punishes so promptly, it is one of the most common of commonplaces that we are slow to profit by its admonitions, and only learn wisdom after repeated warnings.

The uses of pain are, however, by no means wholly, perhaps not even chiefly, physical. Pain is the great teacher, the great agent in the development of character. It may be doubted whether any of the nobler virtues—self-sacrifice, self-knowledge, courage, patience, tolerance—ever have been, or ever can be, fully developed without the agency of pain. It is those who have suffered who are strong. It is he who has borne pain in his own person who best knows how to relieve, or to sympathize with, the sufferings of others. Thus the pain of the individual becomes the fountain of help and consolation to the species. The sorrow of one becomes transmuted into the joy of many.

There are also benefits arising from pain which are reflex or vicarious in character. It not only strengthens and purifies the sufferer, but it developes the helpfulness and sympathy of those upon whom he is dependent. OLIVER WENDELL HOLMES beautifully remarks that the long, anxious, arduous attendance upon a sick friend whitens the hair, but also whitens the soul. There is consolation in the reflection that if sickness and suffering increase the cares and responsibilities of others, there may arise compensation where it is least looked for. It is one of the most pleasing traits of human nature that we seem naturally to be most bound to those for whom we have suffered most.

The moral of these reflections to physicians is, that their close observation of, and association with, the suffering of their patients, should not obtund their sensibilities so as to prevent their active sympathy with their patients, nor interfere with the maintenance of an air of uniform cheerfulness and optimism.

A FLASK FOR THE RECEPTION OF THE EXPECTORATION OF PHTHISICAL PATIENTS.

In accordance with the principles of the prophylaxis of phthisis advanced by DR. CORNET, DR. DETTWEILER, of Frankenstein, has designed pocket spit-cup or flask, which will

obviate the necessity of expectorating either on the floor, or street, or into a handkerchief.

The flask, which is described in the Therp. Monatshefte, May, 1889, holds about three fluidounces. It is made of blue glass and is flat. There are two openings, one at the top and one at the bottom; both have metalic screw-caps. The upper opening, which is the largest, has, in addition, a spring cover or cap, which closes tightly; also, a polished metal funnel, which reaches half-way down into the flask. The funnel acts similar to that of certain ink bottles, and prevents the spilling of the contents of the flask even if the cap is left open. The lower opening is designed to aid in thorough cleansing of the flask when necessary. The instrument can be sold at a cost of less than fifty cents, can be kept perfectly clean, closes securely, and is altogether admirably adapted to the requirements of consumptives.

Book Notices.

MEDICAL AND SURGICAL MONOGRAPHS, VOL. I, No. 3, June, 1889, 8 vo., 916 pp., paper. Price, $1.00.
New York: Wm. Wood & Co., Publishers.

The current number contains General Orthopœdics, Including Surgical Operations, by Dr. AUGUST SCHREIBER, Surgeon in Chief of the Augsburg Hospital, and is profusely illustrated, there being no less than 388 cuts, representing not only instruments and appliances employed for the correction of deformities, and their modes of use, but also the pathology and pathological anatomy of diseases. The text shows great care on the part of the author, and the book is not only readable but valuable. It is by far the best of the Library series of the year, and is marred only by the fact that some of the cuts, taken from photographs, are poorly executed and consequently indistinct and confusing.

Though Dr. SCHREIBER appears familiar with BARWELL'S methods for the correction of talipes, it is a mystery why so much of the latter's work, and also of LEWIS A. SAYRE'S, for the relief of spinal complaints, is ignored, unless for the fact that the Germans of late are inclined to create a little medical world of their own, or at least to ignore the English speaking members of the profession.

ATLAS OF VENEREAL AND SKIN DISEASES. By Prince A. Morrow, M. D. Parts 14 and 15. Large 4 to., pp. 273-318. Price, $2.00 each.
New York: Wm. Wood & Co., Publishers.

These two fasiculi, complete the work upon which we have before passed the opinion, that it is one of the best of its class, so far as text, and typographical, and lithographic work is concerned, yet open to the objection that the plates are typical representations of diseases—forms that are rarely encountered outside of large hospitals. The two parts before us with 10 plates, represent *scabies, pediculus corporis, chromophytosis, tricophytosis, eczema marginatum, lupus erythematosus, l. papillaris, sarcoma* of face and trunk, *epithelioma*, and *leprosy.*

Notes and News.

The Sale of Antipyrin to the Public.—There can be no longer any doubt that this peculiar remedy possesses some valuable properties, and that also it may be very dangerous because it has a tendency to interfere with the heart's action. Physicians, believing from the manner in which it was first introduced into this country that it was a good honest chemical preparation of great therapeutic value, that it would be kept as such strictly within the profession, and sold only on physicians' prescriptions, lent it their countenance and thus enabled the manufacturer to obtain a foothold and sell it in large quantities. It was not generally known among physicians that it was a patent medicine, although druggists must have known this damaging fact, for every package bore the German Imperial *Schutzmarke*, the equivalent of our American "Patented." Had this been known it must have been a serious obstacle to the introduction of such a patented preparation among the profession. Now, however, having gained a foothold and having effectually succeeded in obtaining valuable editorial puffs and reports of cases in the medical journals, without any representation in the only proper place for announcing a strictly professional remedy—the advertising columns of the medical press—the mask is suddenly withdrawn and antipyrin is advertised broadcast to the public, in the usual style of cure-alls, in the daily papers throughout the country. Can the profession afford to prescribe such a remedy, and further than this, knowing its dangers, can they afford to allow their patients and neighbors to run the risk of injuring life and health by the unrestricted and ignorant use of such a powerful and admittedly dangerous preparation?—*American Analyst,* June 6, 1889.

Private Sanitariums for the Better Treatment of Disease.—The environment of patients at their homes is often such that they cannot be treated in accordance with the physician's best judgment, nor the conditions maintained most favorable to their cure.

The impossibility of securing the proper surroundings at home, has naturally led to the establishment by practitioners of private sanitariums, where proper conditions can be more

perfectly maintained and treatment more successfully pursued.

These sanitariums carefully managed are found to decrease the rate of mortality in operative procedures and shorten the stage of convalescence. They are therefore to be commended.

It will interest the readers of the AGE in this connection to know that Detroit with its salubrious climate, and healthful location on the Detroit river, is not without these useful institutions for the better prosecution of practice. One that has been recently brought to our attention is "Willow Lawn," a private sanitarium for women, 626 West Fort St., which is under the management of Dr. EDWARD W. JENKS, of this city, and which we are informed possesses all the requirements of a modern sanitarium, the advantages of which can be more fully explained by communication with the management.

Bostonian Courtship.—

A man of modern science wooed
A maiden of accepting mood,
Who, dreading lest contagion might
Do mischief to her chosen wight,
With sol. bichloride washed her hair,
And sponged her limbs and body fair.

She rinsed her mouth with "Listerine,"
And held, her snow-white teeth between,
A pad of antiseptic gauze—
Covering her nose, as well as jaws—
Which formed a sort of respirator
Between them and her "osculator."

But this reminds—I should have told
That these were things he'd taught of old,
With others which I may not tell, in
Regard to spots that germs might dwell in.
She was a wise professor's daughter,
And practiced all which had been taught her.

So this good medicine man, with pride
Clasping his antiseptic bride,
In disinfected murmur low
Asked "why she loved her doctor so?"
And, softly nestling down, she sighed,
"You're such a dear *old germicide!*"

—*Boston Med. and Surg. Jour.*

A New Mydriatic.—BAMBERGER and MULLER (Berichte der Chem. Ges.) have prepared from hydronaphthylamine a compound which promises to prove a powerful mydriatic, bearing the systematic name of tetra-hydro-beta-naphthylamine, and having the formula $C_{10}H_7H_4NH_2$. According to PROFESSOR FILEHNE, of Breslau, the instillation of a small quantity of a five per cent. solution causes the dilatation of the pupil of the eye treated only, though after absorption of a minute quantity both eyes become affected. The dilatation is greater than that produced by atropine. This compound is said (Chemical Gazette) to act as a mydriatic by stimulating the nerve-endings, instead of by paralyzing the muscles of contraction as does atropine.—*British Med. Jour.*, May 18, 1889.

Danger of Drinking Ice-water.—Water for drinking purposes should never be below fifty degrees. We can almost always get it even in the hottest weather as cool as this by letting it run for a minute or two from any household faucet, or drawing it from any country well. If not, there is no objection to cooling it to the point mentioned. The East India "monkey" which can now be had almost anywhere in this country, and by means of which the contained water is cooled by its own evaporation, answers the purpose admirably. I am quite sure that, if ice-water should be generally discarded as a drink, the average duration of life would be lengthened and existence rendered more tolerable.—DR. WILLIAM A. HAMMOND in *North American Review*, for June.

Medical Licenses in Minnesota.—Two years since Minnesota enacted a license law, and established a Board of Examiners who should decide as to qualifications necessary to the practice of medicine within the state. The good work has shown itself by the diminished number of quacks now parading their advertisements in newspapers and on dead-walls. "Out of the ninety-four candidates who presented themselves for examination up to date, thirty have been refused permission to practice," says the Northwestern Lancet.

This is good news, especially as Minnesota (in conjunction with Michigan and Wisconsin) became the dumping ground for Illinois quacks, a few years since.

Physician Sufferers by the Johnstown Floods.—DR. B. K. MILLS and DR. THOMAS J. MAYS, a Committee from the College of Physicians of Philadelphia and the Philadelphia County Medical Society to carry relief to the medical practitioners, sufferers by the flood, reached Johnstown Monday. They found that six physicians were drowned and twenty-one had lost all they had. They will immediately expend about $3,000 in the work, which has been subscribed by the profession of Philadelphia, and more money will be raised to continue it if required.—*Medical News.*

Apparent Death.—The recent case of BISHOP, the mind reader and the claim by his family that the post mortem was made by the physicians in attendance while BISHOP was in a state of catalepsy has attracted wide attention to the causes of apparent death. These are said by M. BROUARDEL in Gazette des Hopitaux, No. 55, 1889, to be as follows: Asphyxia; hysterical catalepsy; sudden heart failure with syncope; algid state of cholera; exposure to excessive cold; carbonic oxide, alcohol, and anæsthetics.

A Professional Failure.—"Can you recommend something as a spring tonic?" inquired a

sallow dyspeptic, stepping listlessly into an aromatic pharmacy. "Yes," replied the druggist, "I have a number of excellent preparations. What is your line of business?" "I am a professional Faith Curer."

Purchase of Dr. Asa Fitch's Herbarium.—The herbarium of the late DR. ASA FITCH, State Entomologist of New York, has been acquired by purchase by Messrs. Parke, Davis & Co., of Detroit, as an addition to their already large and valuable herbarium. We understand that their collection is the largest private one in the country.

Progress in Medical Education.—The Iowa State Board of Health has decided that Iowa Medical Colleges after 1891 must give a four years course if they desire their graduates to be admitted to practice within the borders of the Commonwealth.

Two Journals Combine.—The Medical Press, of Western New York, and the Buffalo Medical and Surgical Journal have pooled their issues, and will hereafter appear under the latter name.

Mrs. Jane C. Stromont, widow of the late DR. D. W. STROMONT, of Topeka, has generously given $10,000 to the Kansas Medical Society for the purchase of a library for the benefit of the profession.

Therapeutic Brevities.

Treatment of Alopecia.—

℞ Tincture of jaborandi,
Tincture of cantharides,
Soap liniment,
Tincture of pyrethrum, } āā ʒ ijss.
Spirits of citron,
Tincture of tolu,
Tincture of vanilla, } āā ʒ jss.

Apply every morning and evening with friction.—*Revue de Thér. Med.-Chir.*

A Cure for Dandruff.—Dr. A. J. Harrison, of Bristol, recommends the following salve for dandruff:

Caustic potash, 8 grains.
Phenic acid, 24 grains.
Lanolin, } āā ʒ jv.
Cocanut oil, }
M.

This preparation should be rubbed into the scalp morning and evening. Complete cure is usually effected in one to three months.—*Le Progrès Méd.*, April 20, 1889.

Treatment of Frostbites.—Unna has lately published some interesting comments on various remedies for frostbites. He divides them into two classes. The first embraces such bodies as ol. terebinth., iodine, capsicum, tr. cantharidis, camphor, acetic acid, citric acid, and nitric acid. The second contains alcohol, tannin, ichthyol, collodion, storax, Peruvian balsam, and zinc ointment. He finds that a combination of the two classes acts best, and recommends tr. iodi and tr. gallæ; tannin and sp. camphoræ; ol. terebinth. and ichthyol; collodion and ol. terebinth. The old-fashioned friars' balsam also meets with his approval.

Guaiac Resin as a Remedy for Aborting Angina Tonsillaris.—Guaiac resin, largely used in England in throat inflammations if employed early in doses of 0.15 to 0.20 grammes three to four times daily, quickly terminates attacks of angina tonsillaris. It is best to use troches made of 7.50 most finely powdered resina guaiaci, 17.50 sacch. and 25.00 powd. cacao, divided into 50 parts, keeping a supply in the house of the patient, and administering one troche three times daily or, at the highest, 6 times daily on the appearance of the first premonitory symptom.

Adiposity of the Breasts.—Women troubled with this accretion have usually been dosed (in Europe at least) with iodide of potassium. Kisch considers that this treatment is never efficacious except at the cost of emaciating the entire economy. He proposes the following, which he has used successfully against this condition. Cover the breasts with an ointment as follows: Deodorized iodoform, fifteen grains; vaseline, two hundred and twenty-five grains; ol. menth., one gtt. Then cover the breasts with hot cloths dipped into a solution of alum, fifteen grains; acetate of lead, seventy-five grains; aq. dist., fifteen hundred grains. Impermeable paper is placed over the cloths and the dressing allowed to remain in place for eleven hours. Two dressings daily are given for several weeks. The "slack" of the skin is taken up by using frictions of aromatic alcohol. Bandages must be worn for some months after the cure is effected.—*Gaillard's Med. Jour.*

Value of Viburnum Prunifolium.—Dr. W. C. Wood, in Medical Standard says:

I wish to call attention to the power that viburnum prunifolium has of checking singultus, which drop doses of the fluid extract never fail to relieve.

This drug is our most efficient remedy in cases of threatened abortion. It must be given in small doses as it will promote the miscarriage, not stop it. I use one to two drops of the fluid extract every half hour. A large dose, say over fifteen drops, seems to increase the uterine contractions.

After labor, or in cases of chronic uterine disease, due to miscarriage, it is especially useful when combined with cimicifuga, say five drops of each after meals in a little water.

Viburnum in small doses acts as an excellent uterine tonic during pregnancy. It removes the distressing backache, abdominal pain, and promotes sleep.

Medical Progress.

SALIX NIGRA.—There is no doubt in our mind that this agent is more valuable than is generally supposed. It possesses astringent properties, but its best effect is on the sexual apparatus, as a sedative. It quickly controls nearly all cases of ovarian neuralgia or ovarian hyperæsthesia; and in hysteria, with ovarian irritation as a complication, the effects are marked and speedy, and highly satisfactory. It overcomes extreme nervousness and globus hystericus and the headache, tranquilizing the system, and producing rest and sleep. In chronic ovarian irritation, and in ovarian pain and dysmenorrhœa, its effects are sure and reliable. It will correct the leucorrhœa present in these cases, and will strengthen the entire uterine apparatus.

In the male it calms sexual excitement, cures spermatorrhœa when due to sexual irritability, and quickly controls many cases of prostatorrhœa which are intractable under other treatment. From twenty to forty minims of the fluid extract three times daily is the proper dose in a convenient vehicle. We wish our readers would freely experiment with the agent and write us the detailed results of their experimentation.—*Chicago Med. Times*, June, 1889.

DIET IN DYSPEPSIA.—The diet should be strictly according to the following table:

MAY TAKE

Soups, etc.—Thin soups, beef tea, broths.

Fish.—Raw oysters.

Meats.—Beef, mutton, lamb, chicken, game, venison, chopped meat, meat pulp.

Eggs.—Poached, soft boiled, raw or whipped up with water and liquor or wine.

Bread and Farinaceous Articles. — Bread sparingly, corn bread, rice cakes, stale bread and butter, macaroni, sago, tapioca, dry toast.

Vegetables and Fruits.—Green vegetables, such as spinach, turnip-tops, cresses, salads, celery, sorrel, lettuce, string beans, dandelion, chicory, asparagus; oranges, ripe peaches and pears.

Drinks and Liquids.—Water, abundantly; hot water an hour before meals; koumys, buttermilk, milk and lime water, milk and seltzer, tea, claret, dry wines.

Thoroughly masticate all foods.

AVOID

Rich soups, all fried foods, veal, pork, hashes, stews, turkey, sweet potatoes, all starches and saccharine articles except as allowed, all gravies, made dishes, sauces, desserts, pies, pastry, puddings, ice cream, sweet wines, malt liquors, cordials, uncooked vegetables, white potatoes, cooked oysters.

In addition it will be necessary to give thirty drops of dilute hydrochloric acid together with about ten grains of a good pepsin after meals, and the bowels should be kept open. The great difficulty will be to hold the patient to the strict diet. In order to obtain success, however, this must be done, and in the majority of cases the result will fully justify the effort.

Of course the above table can be gradually extended or modified to meet peculiar conditions. But as it stands, we submit it as having served admirably in a type of cases most of which were hitherto unmanageable.—*College and Clinical Record*, June, 1889.

IMPROVED TREATMENT FOR TINEA TONSURANS.—Although in most cases this disfiguring disease yields readily to one or other of the many applications which are recommended for it, yet in some cases, as the physician knows to his grief, it proves extremely obstinate, and the wisest efforts serve only to suppress it for a time. Some years ago Dr. Harrison, of Bristol, attempted, in a paper before the British Medical Association, to lay down more clearly the principles upon which successful treatment must be based. He showed that two sets of agents were needed: the first, an agent to dissolve the hair and to expose the fungus in its lurking places in the cuticle, hair, and hair-follicles; the second, a parasiticide to destroy the fungus. For the first he recommended a solution composed of liquor potassæ, spirits of wine, and iodide of potassium; for the second, a mercuric chloride in spirits of wine and water. By this method, through the softening action of the alkali, the iodide of potassium was allowed to soak into the parts affected, and then the application of the mercuric solution formed the very excellent parasiticide, biniodide of potassium, in and about the tissues occupied by the fungus. In the British Medical Journal, March 2, 1889, he presents a simpler plan, in which the drugs are applied in the form of ointment. He find that patients will carefully rub in an ointment, when they will not take the trouble to properly apply a solution. The ointment which he uses is made as follows: Caustic potash, gr. ix; carbolic acid, gr. xxiv; lanolin and oil of cocoanut, of each, ℥ ss. The ingredients must be well rubbed together, and a little oil of cloves, lavender, or rosemary may, if desired, be added. A small portion of the ointment is to be rubbed on the affected part, night and morning. The alkali softens the hair, and allows the carbolic acid (it should be remembered that carbolic acid is not a real acid, and does not combine with alkalies) to reach and destroy the fungus. He thinks it is better not to shave the part, but to leave the hair at least a fourth of an inch long, as the ointment is then kept upon the part.

To prevent infection from ringworm of the scalp, he employs an ointment of the following composition: Ointment of boracic acid, and ointment of eucalyptus, of each ℥ ij; oil of cloves, ℥ ss; oil of cocoanut, enough to make ℥ vj. This, he says, constitutes a very elegant pomade even for general use, and is also an excellent prophylactic pomade. When ringworm makes its appearance in a family, he recommends that this prophylactic pomade be applied daily, not only to the healthy parts of the patient's scalp, but also to the heads of the other children in the family. To test its protective powers he has in three cases placed infected hairs on the heads of healthy children, and then applied the pomade on the next day. None of the children caught the disease. The great confidence which he feels in the efficiency of the methods described above, is founded upon the observation and treatment of more than one hundred cases of tinea tonsurans.—*N. Y. Med. Record*, June 1, 1889.

The Medical Age.

Vol. VII. DETROIT, JULY 10, 1889. No. 13.

Original Articles.

HYDRO-NEPHROSIS—SIMPLE ULCER OF THE STOMACH—TUBERCULOSIS.*

BY DR. LORAIN.

The case which I am about to report is that of a patient whom I saw for the first time in the service of PARISOT, in the Civil Hospital of Nancy, and whom I found three years later in the wards of PROF. SPILLMAN.

As the autopsy showed, this patient had a suppurative hydro-nephrosis, a round ulcer of the stomach, and old and recent lesions of pulmonary tuberculosis.

The diagnosis presented considerable difficulty, and I may with profit call your attention to the principal facts in the case.

G—, aged 59 years, cook, entered Nancy Hospital, December 28, 1883. Previously enjoyed good health; had been married and with two children; passed the menopause eleven years before.

Six years ago, she perceived for the first time, in the right lumbar region, under the twelfth rib, a tumor the size of a good-sized nut, movable, rolling under the finger. At this moment she did not experience any pain, but only a little difficulty when she attempted to stoop. There was no trouble of the bladder or rectum. From this period, the tumor continued gradually to grow larger. Three years ago she felt for the first time pains in her loins, which she compared to labor pains.

In 1882, the patient had an attack of hæmatemesis; the quantity vomited was about a pint, but was never afterward repeated.

Condition at the time of admission in December 1883.—A tumor in the right abdominal cavity, extending from the twelfth rib above to the fold of the groin below, and from the anterior spinous process of the ilium to about ten centimetres toward the middle line, which is resistant, and composed of five lobes which can be exactly defined by palpation. Fluctuation is perceptible, but not so manifest as in cases of unilocular cyst; in fact, the wave produced by the fingers percussing is not transmitted integrally to the other hand applied at a more or less distant point of the abdominal wall. The tumor is independent of the abdominal wall, coloration of which is uniform and normal. There is no *bruite de souffle* over the tumor. The pains in the loins persist, but are not continuous, and manifest themselves especially two or three hours after a meal. For some time past, when these pains are very intense, they are accompanied by nausea and vomiting. Appetite remains good; obstinate constipation. Urine and micturition are in all respects normal. Vaginal examination reveals nothing abnormal about the uterus or its appendages. For several days the patient has had some dyspnœa, which, however, does not hinder her from pursuing her usual occupation. No trouble with the heart or lungs. Pulse regular, 70 per minute. Temperature normal. The forces have not diminished, there is no emaciation. To sum up: the abdominal tumor does not seem much to influence the general health; it manifests its presence only by the mechanical impediment which its volume occasions.

The patient left the hospital Jan. 18, 1884. She again came under observation Jan. 3, 1887. During these three years she was able, as she said, to continue her usual occupations; from time to time, about every two months, she was taken with violent pains in the back, and at the pit of the stomach. These pains were accompanied with vomiting, which sometime lasted from one to eight days. In the interval, the patient did not suffer; she had no digestive disturbances, but the appetite had failed, and she took very little nourishment. Obstinate constipation required the frequent use of purgatives.

The tumor has exactly the same volume and the same form that it had three years ago. There are the same irregularities, the same lobes, some of which are clearly fluctuating, others more resistant, more tense.

On placing the patient on her hands and knees, we notice that the tumor has a deep attachment by a sort of pedicle in the lumbar region.

By the vaginal touch, the uterus is felt to be movable, the *cul de sac* free.

Jan 28. This morning the face is somewhat pinched; there were several vomiting spells in the night.

Jan. 31. A puncture made with a large Pravaz syringe into one of the fluctuating sacs of the tumor gave issue to a clear yellow liquid,

* Read before the Society of Practical Medicine, and published by permission.

which was found on chemical analysis to contain 2.5 grammes of urea to the quart, and 3 to 4 grammes of chlorides.

Feb. 4 Very severe pains in the abdomen over the tumor; temperature 100° F. in the morning; pulse 96, small.

Feb. 7. The cystic pouch seems more tense. Pains severe and continuous. No vomiting for four days; the temperature is 101° in the evening and 100° F. in the morning.

Feb. 12. The patient had a black tarry stool in the evening. Abdomen tympanitic, tumor no longer visible. Pains less violent.

Feb. 14. A tarry stool last evening, less abundant than the evening before; œdema of the lower limbs, pains in the right leg over the tract of the sciatic nerve.

Feb. 15. The tumor has increased in size; at its lower part we feel a flattened indurated mass which did did not exist on the previous day, and which will not allow the hand to circumscribe the tumor or penetrate the pelvis.

Feb. 17. An abundant tarry stool last evening.

Feb. 19. The patient grew more and more feeble, kept having copious black stools several times in the day. Pulse small, skin dry, bloodless. Could no longer take food. Death took place during the night of the 19th.

Autopsy.—On opening the abdomen, no effusion was found in the peritoneal cavity, which presented no trace of inflammation. The intestine was crowded over to the inside of the tumor, the lower part of which was adherent by several bands of organized lymph to the intestinal coils. The tumor was of the size of an infant's head and weighed 1600 grammes (about 3 lbs.). It was bounded above by the under surface of the liver, of which the anterior border and left extremity were very thin. Behind, it rested on the muscles of the posterior abdominal wall; in front it was covered by peritoneum; internally it encroached on the intestinal mass; below it dipped into the pelvis and extended as far as the uterus, which was somewhat compressed and flattened by it.

The tumor presented an irregular rounded form, and was divided into two parts, a smooth inferior half and a nebular superior half.

The inferior cavity of the tumor was continuous with the ureter which, starting from the renal pelvis, did not proceed in a direct line to the bladder, but turned around and remained adherent to the kidney for the distance of several inches. The ureter was of normal size, and permeable throughout its whole extent; its internal wall was absolutely smooth.

On section, the tumor was found to consist of two sacs; the inferior sac, which corresponded to the dilated pelvis was bounded by a smooth white wall; its cavity would have contained a large orange.

The upper sac was divided into five or six compartments corresponding to the dilated calices; these compartments varied in size from a walnut to a hen's egg, and communicated with the lower sac by roundish orifices whose diameter varied from that of a half franc piece to a franc. The walls of these compartments were for the most part smooth. The convex surface common to all these cyst-like pouches was formed by a thin rosy-red wall four to five millimetres in thickness, the remains of the cortical portion of the kidney. The sacs were full of a sero-purulent liquid. The other kidney was pale, anæmic, and the capsule was easily peeled off.

Stomach.—This organ was divided into two juxtaposed pouches, separated from each other by a narrow neck; in this part there was observed a marked thickening of the posterior wall of the organ. At this point there was noted a large ulcer of the mucous membrane, as large as a five-franc piece, with smooth cut borders. The base of the ulcer (corresponding to the thickest part of the wall) presented almost the same coloration as the rest of the mucosa, except in the front, where we found a small black clot occluding a little open artery.

Intestine.—The cæcum and rectum were filled with fæcal matters of a blackish color.

The liver and spleen presented nothing abnormal.

The uterus was slightly flattened, and presented several fibrous adhesions to the rectum.

The right ovary was atrophied, and the tube of the same side was retracted, and enveloped in a sort of a fibrous webwork which contained two blackish nodules. The bladder was normal; lungs slightly emphysematous. White fibrous cicatrices at the apex of the left lung, whose parenchyma contained several tubercle granules. A cavity the size of a small nut at the apex of the right lung.

Heart small; concentric hypertrophy of the left ventricle; some atheromatous patches on the aorta; valves normal.

By reason of the multiplicity of lesions observed at the autopsy, and of the difficulties of diagnosis during life, this case gives rise to a number of interesting considerations, into the detail of which it would be too long to enter here. We will, then, limit ourselves for the most part to a discussion of the different hypotheses which might be put forth, in view of the clinical symptoms, respecting the origin and nature of the abdominal tumor; then, in the light of the autopsy, we will be ready to explain the pathogeny of this tumor.

When you have before you a liquid abdominal tumor presenting the form, the volume, and the situation of that which we have just described, three principal hypotheses naturally present themselves: you have either an ovarian

cyst, a hydro-nephrosis, or a hydatid tumor of the liver.

This last hypothesis will not long bear an examination; we know, in fact, that hydatid tumors are intimately connected with the liver and seem to make, as it were, part of its substance. Now in our case we could, by attentive palpation, define exactly the upper part of the tumor, and perceive that if it was contiguous to the inferior border of the liver, it was nevertheless completely independent of that organ. Moreover, echinococcus cysts take part in the respiratory movements; this was not the case of the tumor before us. Lastly, the exploratory puncture (aspiration) clears up the diagnosis, as these cysts have characteristic contents.

In a recent thesis, a former interne of PROF. TRELAT, basing himself on a great number of observations, has indicated a new symptom of hydatid cysts of the liver: it is the reaction of the biliary salts obtained by pouring a few drops of nitric acid into the urine. WEST has reported several cases of hydatid cyst which developed in the omentum and gave rise to errors of diagnosis, but these facts are so exceptional that we may set them one side.

It remains, then, to decide between the hypothesis of an ovarian cyst and that of a hydro-nephrosis. Of these two contingencies, the first is most frequent, and the diagnosis of ovarian cyst was the one regarded as the most probable at the time of the sojourn of the patient in the hospital in 1883.

There is one fact, however, that was not sufficiently borne in mind as an aid to diagnosis, and this was the information communicated by the patient respecting the mode of origin of the tumor. It began as a little nodule about the size of a walnut, round, rolling under the finger, situated in the right loin, beneath the twelfth rib.

Had we before us a case of movable kidney?

This hypothesis, which the autopsy proved to be correct, deserves to occupy our attention a few moments.

During the second sojourn of the patient in the hospital, in 1887, we were struck by this fact, that the tumor seemed to have a prolongation behind toward the lumbar region; when we placed the patient on her hands and knees, it was easy to notice this peculiarity, which pleaded in favor of a tumor of renal origin

The vaginal touch indicated nothing; the uterus was movable, was of natural size and situation. The culs-de sac were free. Had we the right to conclude from this that the tumor was independent of the genital organs, and that consequently the supposition of cysts of ovary was ruled out? By no means. We know, in fact, that ovarian tumors may be seated quite high up in the abdomen when they have attained a considerable size, and that a vaginal examination can give us no information about them.

Writers have indicated other differential signs. They have said that renal tumors crowd the intestines before them, while the ovarian cyst pushes them to one side. But this characteristic does not always prevail; there are ovarian cysts which are separated from the abdominal wall by coils of intestines, while hydro-nephritic cysts may crowd the intestines to one side. This last fact was noted by SCHETELIG (Arch. f. Gyn., B. 1, p. 456), and it is confirmed by our case.

We were then in doubt, when aspiration gave us a new clue to the nature of the tumor. In fact, the liquid extracted from the cystic pouch contained urea and chlorides, and presented not a trace of albumen.

The absence of albumen enables us to affirm positively that the tumor was not an ovarian cyst. On the other hand, the presence of urea and chlorides gave us pretty satisfactory hints as to the origin of the liquid, for it is a very rare thing to find urea in the liquid of ovarian cysts.

This fact is a proof of the service which in cases of this kind is rendered by the exploratory puncture followed by a chemical analysis of the liquid. Moreover, the utility of this little operation is recognized by most gynæcologists.

The autopsy, as we have seen, confirmed the final diagnosis. We had before us a case of hydro-nephrosis, whose mode of production it now devolves upon us to explain.

It is admitted that hydro-nephrosis has for its cause a mechanical obstacle to the passage of urine into the bladder. This obstacle is generally constituted by an abdominal tumor (uterine fibroma, ovarian cyst, neoplasm of the bladder) compressing the ureter, whose permeability it diminishes or destroys. A calculus arrested in its course and obstructing more or less completely the lumen of the ureter, may also become the cause of renal dilatation.

As the report of the autopsy proves, none of these causes can be alleged in the case of our patient; hence we were obliged to go outside of the ordinary etiology to find an explanation of the facts observed.

The disease seemed to have commenced by a *renal ectopia*. In fact, I recall to your mind that the patient had noticed, nine years before, a small, round, movable tumor, rolling under the finger, in the right loin, which only gave her trouble when she attempted to stoop. These symptoms are those of a floating kidney.

By reason of the abnormal situation and of the movements of the displaced kidney, its relations with the ureter were modified; the latter became bent angularly upon the kidney, and there resulted an obstruction, more or less complete, of the lumen of the ureter, and con-

sequently an impediment to the outflow of the urine. This sufficed, in our opinion, to explain the dilatation of the cavities situated above the obstacle, and, consequently, the production of the hydro-nephritic pouch.

Moreover, the hypothesis of an old renal ectopia, the cause of all the consecutive accidents, is in conformity with what we found at the autopsy; we noticed, in fact, that the ureter did not leave the tumor at the point where its mouth made part of the renal pelvis, but it wound round the wall of the cyst for a distance of several inches.

Note, lastly, that among the alterations of the dislocated kidney, hydro-nephrosis is one of those most frequently observed (JACCOUD).

If, now, we compare these anatomo-pathological modifications of the autopsy with the clinical symptoms attributable to them, we note that these were relatively benign, and that they played only a secondary rôle in the morbid processes described above. It was not, in fact, the renal tumor that killed the patient, but the consecutive accidents—the ulcer of the stomach with which she was affected.

The first symptom of this lesion goes back to 1882; it was the attack of hæmatemesis. From 1883 to 1887 the patient suffered from digestive disturbances: loss of appetite, vomitings, attacks of pain in the dorsal region and epigastrium.

In the month of February, 1887, appeared a new symptom: the black, abundant, fœtid stools, which occurred almost daily. The matters voided were constituted in great part of blood, modified by the action of the intestinal juices. At the same time the state of the patient had become very much worse; the temperature was elevated, there were intestinal pains and tympanism of the abdomen. The enfeeblement was extreme, and death took place in a few days.

The autopsy furnished an explanation of all these accidents and of this rapid termination. There existed, in fact, in the posterior wall of the stomach, a vast ulcer in process of cicatrization, on one of the points of which we perceived a small artery, which was open and which had given rise to repeated hæmorrhages. The blood effused was eliminated by the intestine, and gave rise to the black, abundant, fœtid stools (melæna) which are mentioned in the report.

The ulceration of an important vessel, we know, is one of the gravest accidents which can attend a case of *round ulcer*, and it was this accident which put an end to our patient at a time when the gastric lesion was almost healed.

This patient presented, besides the lesions of an old pulmonary tuberculosis (cicatrices) and of a recent tuberculosis (caseous granulations), to which, I am compelled to say, no functional symptom had called our attention; but these lesions have only a secondary importance in this case, and deserve simple mention.

THE PATHOLOGY OF RHEUMATISM.*

BY E. S. PETTYJOHN, M. D., CHICAGO.

Owing to the lack of definite etiological or anatomical basis for the classification of rheumatism as a disease, its study as yet is one largely of symptomatology and hypothesis.

SCUDAMORE holds that rheumatism is a disease external to the system which itself becomes affected in a secondary manner by sympathy, but in turn reflects back its influence upon the external parts. He says we may view the effect in the light of a common inflammation modified by the exciting cause (cold), and by the influence of the particular textures affected.

Another theory is that the symptoms of rheumatism are set in motion by the abstraction of heat which produces contraction of the superficial vessels succeeded by dilatation and afflux of blood to the parts, dilatation being maintained long enough to result in inflammation. But the capillaries are non-muscular and the regulation of their blood supply is by nerve action.

Dr. J. K. MITCHELL believed that rheumatism might have its origin in the medulla-spinalis and depend upon irritation of that organ.

PROUT first suggested that the absorption of lactic acid was the cause of derangement of the secondary assimilating powers and produced rheumatism, catarrh, ague, etc., according to exposure to various influences combined with diathesis. This is also supported by RICHARDSON, TODD, *et al.* A later view of the same theory as promulgated by SENATOR is that the acid is developed in the muscles by activity and that a chill causes a retention of this with other effete material, which combined produce rheumatism. While lactic acid is found in excess in the blood in this disease, Dr. MACLAGAN holds that this excess is the result of increased metamorphosis of glucose (the non-nitrogenous tissue element of the motor apparatus) as a product of the effect of the rheumatic poison on the fibrous textures of the joints. He holds the miasmatic theory of rheumatism and believes the disease to be almost analagous to malaria. He charges the *bacillus malariæ* with the crime of generating both ague and rheumatism. BERTOLON and PEL regard a distinct connection between rheumatism and malaria, the latter stating that in Amsterdam in the years when malaria is prevalent there is little rheumatism.

* Read before the Chicago Pathological Society, June 10, 1889.

Still another view as regards rheumatism is that it arises from a profound disturbance of the heat-regulating apparatus which especially affects the muscular system, causing the heat to be generated without work, one of the consequences being that impressions of pain are conveyed to the brain by the articular nerves instead of work performed. There must be retention of heat to account for rise of temperature, but it is not heat of work done.

However much we disagree in theory, we may all agree as to the clinical history of rheumatism, viz., that it is hereditary in 25 per cent. of the cases; that it is more a disease of youth, especially between the ages of 15 and 30 years; that those exposed to the weather and bad air, and who are poorly nourished are especially liable to suffer from this disease; that it is prevalent in warm and temperate climates and near the sea coast; that there is greater liability, other things being equal, of its recurrence in those who have once been afflicted.

An attack is usually ushered in by a chill or rigor, followed by feverishness, stiffness or pain (which soon becomes intense) in one or more red, swollen, tender joints. This is accompanied by prostration. The patient is helpless and restless. The face is flushed; the pupils dilated; the whole body is hot and bathed in sour-smelling perspiration. The temperature is 103° to 105° F., the pulse rapid, full and soft. The tongue is covered with yellow fur; there is thirst, anorexia, and constipation. The urine is diminished, dark-red and of high specific gravity, highly acid and often contains albumen. The inflammation with all its accompaniments migrates from joint to joint, from sheath to tendon, synovial membrane to periosteum, from endocardium to neurilemma, always announcing its arrival by some or all the phenomena known of that condition. The duration is from a few days to weeks. The results are: joints stiff or anchylosed or nodulated changes in sheath, tendons, ligaments, periosteum, endocardium, pericardium, valves and heart-muscle, synovial membrane and neurilemma, with a medley of morbid conditions such as hæmaturia, paraplegia, paralysis of the bladder (from implication of the spinal cord), hemiplegia, monoplegia from cerebral disease, chorea, melancholia, insanity, imbecility, etc.

A careful study of the theories just mentioned as to the cause of the group of phenomena called rheumatism, will determine that each has some element of truth, supported by experimentation and clinical observation; but no one has yet gained general acceptance.

The belief that rheumatism is an infectious disease produced by bacteria is, I think the true one, and rapidly gaining credence. Rheumatism is intimately related to other infectious diseases, especially malaria, endocarditis, meningitis, and chorea, and eventuates in neuroses. It frequently occurs in epidemics as reported by ERICHOREST from the hospital at Zurich, and by PEL, of Amsterdam, who cites a case of a patient that was removed to a bed between two others suffering from rheumatic fever. She never having had rheumatism was attacked with it coincidently with a relapse of the disease in five other patients. Cases are mentioned by SCHAFER, SALISBURY, and THORENSEN, the latter having observed the spread of the disease by personal contact as SAWYER did malaria.

EDELFSEN states that in Kiel it is a house-disease like fibrinous pneumonia and typhoid fever. He reports 728 cases occurring in 492 houses. MULLER has shown that the disease does not occur within a few hours after exposure, but that it has a prodromal period as in other infectious diseases, and that often the fever precedes by days the articular and other symptoms. The schizomycete or bacterium which produces rheumatism is taken into the blood where its action or presence may be responsible for the rapid diminution of the red corpuscles by robbing them of their oxygen and the greater increase of the white blood corpuscles, also for the increase of the fibrin from 3 to 7 or 8 parts to 1000. The infectious organism seeks the white fibrinous tissue and the serous tissues of the motor apparatus, because here it finds the best medium for growth and development. The schizomycete acts as a local irritant wherever it lodges. It alters the constituents of the blood stream which it fills with more of its kind, and excretions are abundant. The parts inflamed produce rapid multiplication of the schizomycete and the contaminated blood carries them along to produce results elsewhere. I believe all the phenomena of this disease and its sequelæ are the result of the morbid state of the blood produced by the presence of the offending schizomycete. I am persuaded that two or more deleterious schizomycetes may exist at the same time in the system as in cases of phthisis where intercurrent attacks of rheumatism occur, or where we have a pneumonia in a patient with anthrax. While there are millions of microbes in the water and air and in the blood, and while the blood itself has power to diminish or even destroy by the million various bacilli in a few hours, even the typhoid bacillus as shown by FKDOR; while the streptococcus pyogenes of ROSENBACH is harmless in healthy saliva so long as the epithelium is intact, each of these same bacteria may produce death. Careful post-mortem examinations have failed to find altogether adequate lesions explaining the morbid symptoms of rheumatism. Hæmorrhages have been found in the mediastinum, epicardium, spleen,

pleura, in the meninges and peritoneum. Also cloudy swelling of kidneys, liver and heart with injection of synovial membranes and erosion of cartilages and many morbid states producing the impression of an infectious process.

The exact schizomycete of rheumatism has not yet been found, nor are we to conclude hastily that a microbe is the cause instead of the effect of any disease. But proofs are sufficient to warrant that thorough experimental research of years, to isolate, cultivate, inoculate, and demonstrate the recurrence, the constant pressure, and the positive identity of the micro-organism of rheumatism.

THE "NANCY SCHOOL" OF HYPNOTISM.

BY W. F. ROBINSON, M. D.

We hear much of hypnotism now-a-days, in current literature both medical and popular, and yet I am sure that the profession in America do not realize the actual state of the case, or know how far the teachings of this remarkable science have been carried into the domain of practical therapeutics—or, in plain English, the healing art. It may be said in general, that the tendency of medicine on the continent of Europe to-day is to a great extent in the direction of its scientific development. This fact is particularly noticeable to a foreigner when walking the wards of any large hospital in Paris, Vienna, or Berlin. He will hear the cases exhaustively discussed as to their etiology, their pathology, the probability of the participation of microbes in their production (for the microbian theories are now running rampant, especially in France); but the important question of "What shall we do for him?" runs a sad risk of being almost crowded out. This is also true, to a large extent, with regard to hypnotism, and the literature of the day is full of various theories, explanations as to how this curious condition is brought about, etc; whereas the question of its actual therapeutic value in healing the sick has been very little dwelt upon.

It was with ideas of this sort that I arrived at Nancy in order to see for myself some of the wonderful things of which rumor had told such remarkable tales, and I was agreeably surprised to find that, as regards hypnotism at least, the order of things was reversed, and that the main effort was not to develop the scientific side of the question, but to heal.

The principal figure among the group of men who to-day form the "Nancy school" is DR. BERNHEIM, Professor of Internal Medicine in the faculty of Nancy. Some years ago he attended a hypnotic conference given in Nancy by a person not a doctor; and, struck by what he saw, began a series of experiments on his own account. From being a scoffer he became a believer, and soon the believer became an enthusiast, and in the year 1884 he published his memorable work on "The Suggestion and Its Application to Therapeutics," which may be said to mark an era in what may be called the art of healing without drugs.

PROF. BERNHEIM is, to-day, one of the prominent figures in European medicine, and his clinic is constantly visited by physicians from all parts of the world anxious, like myself, to see with their own eyes, some of the wonderful things of which they have heard. At one of his recent clinics, devoted entirely to hypnotism, there were present, among others, a prominent physician and scientist from Sweden, accompanied by his wife, who is herself a Doctor of Philosophy; a doctor from St. Petersburg, Russia, who had come all the way from his home, in order to learn the hypnotic method of healing; a young physician from Brazil; and myself from the United States; so that one might say that the four quarters of the globe were represented in the hospital ward, that bright Sunday morning. The great ruling principal of hypnotism as practiced by the "Nancy School" of to-day may be expressed as being the "power of the suggestion," and it is undoubtedly to the realization of this fact that the remarkable results obtained are due. The theory may be succinctly stated in a few words as follows: it has been proved beyond the shadow of a doubt, by numberless experiments, whose simple narration would fill a volume, that the "suggestion" has a wonderful power over the functions of the organism, the nervous system, the vaso-motor apparatus, the higher faculties of the mind; all may be brought more or less perfectly under the control of the experimentor. This being true, it is claimed, and not without good reason, that the various functions of the body when distended, may be beneficially affected by the suggestion, just as they are affected by drugs in the ordinary procedures of medicine. Acting on this theory, the members of the "Nancy School" treat a large class of diseases of all sorts by this same means, and no candid observer can deny that the results are excellent. I have visited the clinic day after day so as to be able to judge with my own eyes of the results of the treatment, and I have been able to satisfy myself that they are certainly as good, and in my own opinion much better, than those of any clinic I have visited on the Continent. Diseases of all kinds are treated, both acute and chronic. Cases of St. Vitus's Dance (chorea) are treated by this method with marked success, also professional neuroses such as writer's cramp, pianist's cramp, etc. Both diarrhœa and constipation are as a rule very amenable to this method of treatment and the most obstinate cases of the latter trouble, will gener-

ally yield in the course of a few seances or treatments, to the power of the "suggestion" without intervention of any medicament whatever. Some remarkable results have been produced by this treatment, in cases of menstrual irregularities, as dysmenorrhœa, amenorrhœa, menorrhagia, etc. On cases of amenorrhœa, it is frequently possible, by means of repeated suggestion, to bring about the menses at a certain date, which has also been accomplished in cases of too profuse menstruation. The two following cases, of which a synopsis only is given, occurred in the practice of Prof. BERNHEIM. The first case is that of Mlle. C., 25 years of age, naturally nervous, employed as a teacher. She consulted the professor for delayed menstruation and he gave her the suggestion, in the hypuotic condition, that they should return the 30th of the month, a date, two weeks removed from the day of consultation. The patient did not appear again until the 30th, when she came to announce that the menses had appeared that same morning. The suggestion was again given that they should appear the 28th of the month following, and this second attempt met with the same success as the first.

The second case was that of Mme. H., thirty-five years old, mother of three children the youngest of which was 9½ years old. She was a woman of good constitution but inclined to be nervous and had suffered in her youth with hysterical attacks, accompanied by loss of consciousness. Ever since her first accouchment she had had her courses every 21 days, and for the last two years they had appeared every two weeks, sometimes oftener. They were very profuse and generally accompanied by severe cramps.

By means of repeated hypnotic seances, Prof. BERNHEIM was able to separate the successive menstrual epochs by periods of nearly a month and render them almost entirely free from pain. In this case the suggestion would frequently fail, in so far as the suggested menstruation, instead of being postponed to a given date, would appear one or two days before, which fact only demonstrated the wonderful power of this method of treatment, while showing at the same time that this power has its limits. The power of the suggestion over the function of menstruation was incidentally shown here some time ago in a rather curious manner.

There was a foreign physician visiting the clinic, and while one of the patients was in the hypnotic state he gave her the suggestion that her courses should appear the next morning. The patient, being in a profound hypuotic slumber, was entirely ignorant that any such suggestion had been given her, but the next morning when she came to the clinic for treatment, she narrated how her menses, which were not due until the week after, had suddenly appeared without cause that same morning.

This little incident is particularly valuable, precisely on account of its incidental charater, for the patient was not suffering from menstrual derangement of any kind, and, as before remarked, had no idea that any such suggestion had been given her.

As might be expected, the various hysterical troubles are very amenable to this method of treatment, and, as a rule, are rapidly relieved and cured. Among them may be mentioned hysterical aphonia or loss of voice; nervous trembling of some part of the body, as the tongue, an arm, or one half of the body; and nervous or hysterical anæsthesia, which may, like the trembling, be limited to a small area, or, on the other hand, embrace one or the other lateral half of the body, or even, in rare cases, include the whole cutaneous surface. These cases are sometimes cured in a single seance, or, on the other haud, they may require several repetitions of the treatment before the desired result is obtained.

Another important nervous trouble in which the suggestion has proved itself of great value, is insomnia, an affection, by the way, which is extremely common among Americans, especially those who hold positions of responsibility and trust. I have had the good fortune to see, myself, in the clinic, several cases of this intractable affection most satisfactorily relieved by hypnotism, and am, therefore, firmly convinced of its value in this malady. As I have before remarked, the application of this method is not limited to any class of cases, but is applied in general to all, or nearly all the affections which present themselves for treatment at certain clinics. While there is no doubt that certain enthusiasts on this subject carry their belief in its therapeutic value too far, I do not hesitate to say that prolonged personal observation has convinced me of its value in a large class of cases, more especially those of a functional nature, and also those troubles in which prolonged medication, consisting almost inevitably of narcotics, is calculated to do more harm than good, and may in the end reduce the patient to the condition, at once frightful aud pitiable, of a morphinomaniac or chloral habitue.

CLINICAL NOTES FROM PRIVATE PRACTICE.

HÆMOGLOBIN COMPOUND AS A NUTRIENT.

DR. A. H. KELLER, of Hastings, Nebraska, writes:

April 5th. Was called to see Mrs. W., aged 23, who had been under treatment for vomiting of pregnancy for seven weeks. Tongue swollen and raw; stomach in a terrible condition. I tried to control vomiting, and used

nourishment per rectum, but with little gain. Finally, under counsel, performed abortion. No more vomiting after the operation, no fever, nothing but a wasted body and softening of the brain, which was not expected to improve; indeed, death was anticipated every hour. I attempted in every way to build her up, and began to use STEWART'S hæmoglobin compound, when I was pleased to see prompt results. I used per rectum while her mind was at its worst and power to swallow almost nil.

Another patient that was rapidly going down —languid, weak, etc.—on egg-nogg, beef-tea, emulsions, etc., on hæmoglobin compound, 3 teaspoonfuls every 4 hours, rapidly improved.

A book might be written on the first named case, with its varied complications of mind and body, varied treatment, constant care and worry, etc., and though I do not look for a permanent cure, due credit must be given to hæmoglobin for helping us in a time of need.

NOTES ON THERAPEUTICS OF OXYGEN.

DR. J. H. DEWOLF, of Baltimore, Md., remarks: No disease is more unsatisfactory to both patient and physician, than asthma. Mr. R. came to my office almost unable to speak or to attend to business; could not recline; no appetite, and assimilation defective. I gave him about eight gallons of a mixture of oxygen, nitrous oxide, and per oxide of hydrogen. After four inspirations, the patient belched up great waves of foul air, with resultant comfort. Repetition afforded complete relief; he was able to laugh, walk, and talk, with comfort. Not alone was the asthma completely relieved, but the digestion, assimilation, and color assumed their natural conditions. I could relate several such cases, and in my experience the treatment does not fail in more than 3 per cent. Note, however, that compressed oxygen loses its efficacy every moment it is compressed, and to obtain decided benefit it should be freshly made, carefully and thoroughly purified, properly mixed, and careful consideration and attention given to details.

TROUSSEAU records the following: Girl aged 22; puerperal hæmorrhage and excessive lactation producing great depression of vital powers; her features resembling those of a cadaver. Admitted to the hospital April 1, 1864. For 14 days there was no improvement; continuous fever; pulse 120 to 130; skin hot and dry, and increasing debility. The debility became so great that she could not sit up in bed without fainting, and auscultation was rendered almost impossible. It was ascertained, however, that there were no tubercles. Tonics and iron failed completely; the anorexia remained absolute. On the 14th of April she began inhaling oxygen. The first attempt to inhale caused syncope. By the 17th she was able to sit up in bed and eat a little; pulse 104; she also asked for food, and sat up for an hour. April 24th, the pulse fell to 80; the patient went down to the garden; her appetite is voracious. April 30, the pulse fell to 72, and has been so for the last four days; the patient desired to leave the hospital, but she was still pale, the living fibre having gained its tonicity sooner than the blood its normal constitution.

Correspondence.

PHILADELPHIA LETTER.

JUNE 30, 1889.

The Johnstown Disaster—The Action Taken—Subscriptions and Offers—The Volunteering of Physicians—Dr. Forbes' Party—Red Cross Society—Their Reception—The Advance Guard—Their Report—Action of Philadelphia County Medical Society—Adjournment of State Medical Society—Dr. Hamilton's Report—Medical Papers' Editorials—The Bond of Sympathy Extended to the Victims.

The excitement caused by the Johnstown disaster is abating to a great extent; matters now being pretty thoroughly systematized, and the proper persons chosen to complete the work of relief. The announcement of the details of the "horror" thrilled the citizens of this city, and aroused them to prompt action. Every one instinctively felt that something must be done by themselves personally to mitigate the sufferings of the afflicted people. Money, clothing, and food were collected with the most wonderful rapidity; $200,000 being raised on the Monday after the disaster, and the total fund from this city at the present date is but a few dollars less than a million, while the banks have loaned another million, without interest to the State, to clear up the region, and put it in sanitary condition; and the value of the clothing and food sent closely approximates half a million more.

With these gifts came many offers from individuals, and associations, volunteering to go to Johnstown and do what good they could. Many parties were sent out, which did notable work in the time of sorest need. But later, many less philanthropic individuals, seeing the tremendous amount of advertising the pioneers in the work were getting, offered their services, more with an eye to their own good than the good of Johnstown. I was sitting in the office of a city official, on my return from Johnstown, and my eyes were opened in regard to this point; social clubs, debating societies, political organizations, and even a dancing-masters' association, were eager to be off to Johnstown.

Conspicuous from the rest, the physicians of the city modestly met, and volunteered their

services, if wanted. DR. W. B. LOWMAN, of Johnstown, who made, with his family, such a miraculous escape from death in the flood, telegraphed to DR. W. S. FORBES, of this city, who was a personal friend of his, for medical aid.

They wanted medicines, surgical supplies, food, clothing and physicians. Dr. FORBES hastily gathered a party, and decided to leave on a special train over the Baltimore and Ohio Railroad, as soon as the railroad officials could assure him of reasonable chances of getting to Johnstown over their route. At the same time, the Red Cross Society decided, as is their custom on such occasions, to send a complete outfit, self-supporting, to the scene of the disaster, realizing that the circumstances were such as to demand their presence and aid. They had three car-loads of appropriate material, consisting of tents, drugs, splints, bandages, food, etc.

Dr. CHAPMAN, chairman of the medical relief committee, decided to send in advance of these parties, two physicians who were instructed to get to Johnstown as soon as possible, to inform the medical authorities there of the approaching relief parties, and to ascertain what additional, or special, wants were felt, and to report these immediately to the home committee, together with whatever other facts and information would be deemed necessary for them to know. This advance guard reached Pittsburgh Monday night, having travelled over 1,200 miles over various routes, and Tuesday morning June 4th, they reported in Johnstown.

They found the number of sick and wounded remarkably small; people, having either escaped unharmed, or having been killed out right. A large supply of drugs, physicians in relays, and a fund of money, raised especially for the needs of the afflicted physicians, were among the points which they reported.

Getting the physicians to come in regular relays, rather than promiscuously and all at the same time, was the special thing, about which the Johnstown physicians were anxious. Dr. FORBES' party, and the Red Cross, arrived Wednesday, and went at once to work.

A portion of Dr. FORBES' party were stationed at the Bedford St. Hospital, which was a deserted beer-garden up on the hills, at the side of the town, while the rest of the party were put at such work as superintending the cremation of dead animals, and similar sanitary work. At the same time, the Red Cross men were getting their tents ready, and beginning to hunt the patients, who, scattered over the region, were too dazed to seek medical relief.

The authorities of Johnstown, having been overrun with all sorts of self-appointed committees and organizations, did not at first realize the value of the work of such a splendid organization as the Red Cross, and treated them very rudely. They were told they could have accommodations over night if they would return to their own city in the morning. The Red Cross authorities felt indignant, and declared that they wanted nothing except to be allowed to do their work. At first they were not allowed to enter Johnstown, so they pitched their tents in the outskirts, and opened their hospital, and depot for distributing food. Later they were recognized properly, and now, under the efficient leadership of MISS CLARA BARTON, are doing most effective work.

In the meantime the County Medical Society and the College of Physicians had called meetings and raised special subscriptions for the benefit of the Johnstown physicians; other medical societies elsewhere over the country were doing the same thing. The physicians of Pittsburg were specially active in the work, and untiring in their devotion. DR. CHAS. K. MILLS and DR. THOS J. MAYS arrived in Johnstown on June 10th, representing the joint committee of the College of Physicians and the Philadelphia County Medical Society, and found that six physicians were drowned and twenty-one had lost all they had. Three thousand dollars was immediately expended in the work of relief to the medical practitioners and their families, and more money being ready to continue it as thought necessary. The Pennsylvania Medical Society, which convened at Pittsburg on Tuesday, June 4th, after passing appropriate resolutions of sympathy, appropriated $1,000 for their relief, and adjourned until September 3d, when all the papers and reports will be heard. The annual meeting was to have been held in the early part of June, but was put off to the above date owing to the disaster.

DR JOHN B. HAMILTON, Surgeon-General of the Marine Hospital Service, has made a report to the President in regard to the situation of affairs. He thinks that ten days more of systematic work will clear the surface of the main portion of the late city.

He thinks the danger from a sanitary point of view is from the drift at the bridge, where many bodies are still imprisoned, and that this danger is not to the inhabitants of Johnstown, but to those people depending on the lower river for their water supply.

DR. GROFF, member of the State Board of Health, in charge of Sanitary Corps, issues the following bulletin:

"The State Board of Health is fully prepared to meet all emergencies as they arise. As a precautionary measure, a hospital for contagious diseases has been established, and if any cases appear they will be promptly dealt with. The air continues pure and wholesome, the water pure. The bodies still in the wreck are so

covered with earth as not to be dangerous to health.

There is every precaution being taken to prevent the contamination of the water supply of the towns below Johnstown. There is no ground whatever for alarm in this matter at present."

The local medical papers here feared greatly that the hasty burial of so many bodies would produce the dread results which have occurred in the vicinity of great battle-fields, making the region for a long time unfit for habitation; the covering of earth above the bodies being so slight that the products of decomposition would contaminate the air, and the water by percolating through this soil would be rendered unfit for use. But personal observation of the methods of burial authorize me to say that no more dread results need be feared than would be experienced in the vicinity of a large cemetery.

Certainly the love and sympathy which has been shown on all sides, for the afflicted people, will serve to teach the public the strength of the bond which unites them as a nation.

TOXIC SYMPTOMS PRODUCED BY A SMALL DOSE OF ACETANILIDE.

DR. MEYER, of Hillesheim, reports in London Lancet a case in which, having given a robust girl of thirteen who was suffering from pyrexia and headache some acetanilide (antifebrin), dispensed in bulk so as to save expense, two doses were taken, contrary to directions, within three-quarters of an hour of one another. These doses were merely measured by the quantity which could be taken up on the point of a knife, and could not have much exceeded four grains. After the second dose, the child, though she lost the severe headache which had induced her to take the double quantity, became blue in the face and complained of great faintness, palpitation, and prostration. The heart's action was certainly increased, and as she lay in bed it was noticed that her legs were much colder than usual. As the acetanilide had apparently produced such undesirable symptoms, Dr. MEYER ordered that no more should be taken. However, one day when he was away the pain in the head came on so severely that the girl again disobeyed his instructions and took the remaining portion of the powder, nearly seven grains, in two doses within an hour or so of one another. Again the pain was cured, but on Dr. MEYER'S return he found a considerable amount of cyanosis, which, notwithstanding his persistent use of stimulating measures, did not disappear for twenty-four hours. It should be stated that the patient in this case was, as a rule, very tolerant of powerful drugs, having frequently taken rather large doses of morphine without any unpleasant effects.

The Medical Age.

A SEMI-MONTHLY REVIEW OF MEDICINE.

B. W. PALMER, A. M., M. D., Editor.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

DETROIT, MICH., JULY 10, 1889

Editorial.

FORTIETH MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

The fortieth annual meeting of the American Medical Association has now added to the history of medicine the pages recording its work. The attendance was, if we are credibly informed, less than usual, but the papers of greater interest than in previous years.

The officers elected for the ensuing year were as follows: President, Dr. E. M. MOORE, of New York; first vice president, Dr. J. W. JACKSON, of Missouri.

The cities under consideration as desirable for the next meeting, were Detroit, Philadelphia, Nashville. We think it is rather to be regretted that the last of these three was selected with such obviously better choices open to the committee.

It would appear from this year's experience that a town of Newport's size is too small to accommodate acceptably so large a gathering, and much inconvenience naturally resulted to many in attendance. There was, however, no lack of courtesy or effort on the part of the Newport profession to make the time of the visitors pass pleasantly, and with the facilities at their command, and a well organized scheme of entertainment, they succeeded admirably in providing for the social welfare of all.

The retiring president's, Dr. W. W. DAWSON'S, address was retrospective and full too of suggestion and inspiration and hope for the future. Such pregnant subjects were discussed as "The Physician of the Future;" "Medical Schools;" "Laboratory Work;" "History of Medical Teaching in this Country;" "Medical Journals;" "Medical Literature;" "Medical Societies;" "Protected Medicines as Spots on our Sun of Promise;" "Laws for the Regulation of the Practice of Medicine." We are not a little surprised that the scholarly president failed to make any reference, in recounting the achievements in medical literature, to the Index Medicus, that monument of medical progress which renders accessible to the profession at large the treasures of the surgeon-general's library without which this grand

library would be virtually unavailable to the mass of the profession.

Among the work accomplished by the Association, none was perhaps more important than the discussion and final passage of two resolutions, one having for its object the closer union in future of the national societies representative of medicine and pharmacy, the American Medical and the American Pharmaceutical Associations. PROF. J. W. REMINGTON, of the Philadelphia College of Pharmacy, in behalf of the American Pharmaceutical Association, was present, and at his instance a committee was appointed to consider the establishment of a section of pharmacy in the American Medical Association. It is probable such a section will be created, and that a section of medicine will in turn be established by the American Pharmaceutical Association. This is certainly a consummatiou devoutly to be wished, and which will, no doubt, be of great advantage to both societies and to the interests of both arts. It is expected also that this committee will consider the propriety in future of regulating the character of pharmaceutical exhibits at the meetings of their association, a step which all medical associations must see the necessity of taking.

The other resolution referred to, is to the following effect, viz.: that a petition be submitted to Congress requesting that an investigation should be made by a specially appointed com mission, of the abuses arising from the peculiar construction of our patent laws, which now enable foreign manufacturers to create and maintain a monopoly in certain new and valuable drugs to the disadvantage of Americans, and especially to the sick of this country, and by raising the price of such drugs to a much higher price than will cover the legitimate profit, forcing consumers to pay an exhorbitant rate for medicines which may be regarded as necessaries. This resolution was uuanimously adopted, and will be acted on. It is to be hoped that it will be able to achieve its laudable object.

Among the papers of note read, abstracts of some of which we hope to furnish our readers later, the following may be mentioned: Address on General Medicine, by Wm. Pepper, M.D.; Address on General Surgery, by Phineas S. Conner; A Review of Progress, by F. C. Shattuck, M. D.; Pepsin, by Dr. Frauk Woodbury; Chronic Endocarditis, by Dr. Francis Delafield; The Induction of Preiuature Labor, by Dr. James Tyson; Wild Yam and Notes on Hoang Nan, by Dr. J. V. Shoemaker; On the Radical Cure of Heruia, by Dr. H. O. Marcy; International Couity in State Medicine, by Dr. John B. Hamilton; Modern Sauitary Conditions, by Geo. E. Waring, Jr.; Pepsiu, and also Intestinal Diseases of Children, by Dr. Peter Hooper.

THE MYSTERIES OF MALARIA.

Under this head ELIZABETH PRIESTLEY writes in the last Nineteenth Century. Her article is a good presentation of the latest results of scientific study in the pathogeny of malaria.

Fever and ague were known to the ancients. It was the scourge of Republican Rome. CICERO in allusion to Romulus having built Rome, remarks that he selected a healthy spot in a pestilential region ("*locum delegit in regione pestilenti salubrem*"). Malarial fever was then, as it is now, invariably associated with damp; and although Lucretius, B. C., 95, ventured to suggest that malaria was due to living organisms in the blood, such an idea was considered as too wild to be seriously entertained. To hold the floods in check, or restrain the masses of water which burst from the porous sides of the hills, was the remedy which appealed to the practical minds of the Cæsars. With marvellous engineering skill they devised and carried out an elaborate system of cunicular drains which penetrated the hills around Rome, and spread underground throughout the Campagna with ingenious web-like intricacy. The work of drainage was further carried out by the cutting of canals, and the opening of the Appian way across the land.

By these means, malaria was rendered comparatively impotent; hence the healthy and thriving population, the luxurious villas, the abundaut crops and farms of which we read. Life had become possible, and accordingly all was prosperous until political disturbances and ruinous wars brought about the fall of the Roman Empire, and changed the whole face of Nature. The drains fell into decay, and over the ruins of the metropolis the long restrained malaria gradually and insidiously crept, to flourish ouce more on the forsaken land In the vapors of the night, in the dews of the morning, the germs of the disease maintain their vitality, and in the sultry breeze may be disseminated far and wide. In all malarial countries the tale is the same. The germs which are the fundamental cause of the disease, originate in swamps, follow the course of rivers, and haunt jungles and those regions which are left to themselves.

In many parts of Ireland and Scotland—indeed, wherever peat prevails—however, damp and marshy the country may be, malaria is unknown, owing to the powerful antiseptic qualities of the peat. For the saiue reason, it is uuunknown in the "Disiual Swaiup" of this country.

It was loug supposed that the *materies morbi* was certain gaseous or aëriform eiuanations proceeding froiu the surface of the earth. SALISBURY was oue of the first to affirm the living, parasitic origiu of iualaria; his peculiar views as to the *palmella* have met with no ac-

ceptance. LANZI and TERREGI in 1873 affirmed that malaria "consisted in a cadaveric vegetable product generated by putrefaction of algæ and other plants." They experimented on animals with mud from the marshes of Ostra, and succeeded in producing malaria; they noted especially the black pigments in the blood, and the enlarged spleen.

Subsequently, TOMMASI-CRUDELI and KLEBS studied the pathology of malaria in the Agro Romano, in the very heart of the deadly Pontine marshes. By the help of an ingenious instrument devised by KLEBS, they were both able to prove that in malarious districts the poison is raised above the level of the ground, even before the time when the infection becomes manifest in man. They obtained microscopic specimens from air, water, mud, etc., in marshy malarious districts, and found innumerable organisms, which were subjected to the usual processes of elimination and cultivation in the laboratory. To determine the infectious nature of the malarial virus, they inoculated rabbits with fluid mixed with matter from the air, water and mud, from these localities, and found that it was possible to give these animals true malarial fever. In almost all cases the characteristic black pigment was found in the blood, the spleen was enlarged, and in the lymph they discovered many brilliant, *actively moving, oval* bodies. They found one particular micro-organism with a filamentary appearance, which, from its being constantly present in the blood of malarious subjects, and from other reasons, they took to be the true cause of the disease, and designated as the *bacillus malariæ*. Subsequent investigations have made it almost certain that this flagellated organism was one phase of a parasite which also took the form of actively moving, oval corpuscles, the true cause of the malady.

We come now to the more recent observations of MARCHIAFANA and CELLI. Under the influence of the malarial poison, the red blood-globules rapidly disintegrate. The first change seen to occur in the blood is very minute, simply a speck which appears in a red corpuscle. That little speck is a living germ which has found an entrance into the human body through the air or drinking water, and finds suitable nourishment and conditions for reproduction in the corpuscles of the blood. Sometimes these specks form into circlets, and take divers shapes. If we follow the life history of this speck (or plasmodium), we shall see how it lives at the expense of the blood globule, and how it is that the victims of malaria become pallid, anæmic, and during recovery are often voraciously hungry.

Under the microscope, the germ is seen to increase in size, and as it develops, the outer rim of the red blood-globule becomes paler and paler as the coloring matter is drawn away from it, and converted into the black pigment which appears to be gathered up or stored in the centre. During this process, the blood corpuscle goes through a series of changes not unlike those of the moon, for it generally ends in a crescent with a faint outline of the circle still adherent to the horns. When the crescent finally sets itself free, all that remains of the original red globule is a colorless orb. In the crescent is seen the store of black pigment which, indeed may be called the life blood of the victim.

In cases where the deterioration of the blood is very rapid and the patient becomes comatose, little hope remains of saving life; but where the destruction is slower, recuperation has time to set in, and the healthy blood cells gain the day. TOMMASI-CRUDELI well explains this disease when he calls it the *necrobiosis* of of the red blood corpuscles; in other words, death of the blood by the destructive agency of a parasite.

LAVIRAN'S experiments, the results of which were published last year, go to show that the microbe of malaria is *polymorphic*, and that the mobile filaments which CRUDELI supposed to be true bacilli were simply appendages of the pigmented bodies or plasmodiums, which are the *vera causa*. The pigment granules invariably found associated with malaria are the first indications of the disease, for the parasites in which they are imbedded are so transparent as to be scarcely visible. The next stage in the evolution of the parasite (seen in blood taken at the height of the chill) is that of the flagellated body. The microbe has now the form of an amœba, with an actively moving tail; the black pigment is still seen in the centre. The next change is the *crescent;* the microbe looks like the moon in its last quarter; in the middle lies the stored up pigment. The crescent now frees itself of the pigment-granules, shrinks slightly, and assumes an oval form, then expands till it becomes a large round body, when signs of segmentation take place. This is called the *rosette* form. In ten minutes from the first faint sign of segmentation, a cluster of nucleated cells may be seen with the little dark pigments in the middle. Twenty minutes later, the cells have taken definite and distinct shape, and in another hour have burst into free bodies, scattering forth the pigment granules in the general disruption. This is the hour of the fever paroxysm, when the patient is in the agonies of prostration.

Such are the leading points in these interesting discoveries, which to the physician of a past age would seem like a fairy tale.

The bacillus of KLEBS and CRUDELI, it will be observed, is only a part of the real parasite, the plasmodium; it is the *flagella* of the per-

fected parasite, which often becomes detached, and moves about independently.

All attempts to cultivate the parasites (hæmatozoä) outside the body in nutrient media have failed; in the human blood only can they be studied.

These observations have been lately confirmed by DR. VANDYKE CARTER, of Grant College, Bombay, who graphically describes what he has witnessed in living malarial blood —the war between the microbes of malaria and the leucocytes. DR. CARTER has found that the crescentic bodies are not so attractive to the leucocyte as the flagellated, for the leucocyte will turn from the former, leaving them untouched, and prey upon the latter. In the fierce combat between the leucocytes and the flagellated spheroids, the leucocytes seem often to triumph in the complete overthrow of their adversaries.

In reference to this part of the subject, Prof. METSCHNIKOFF believes that the malarial parasite in its free crescentic state is not devoured by leucocytes in consequence of its secreting a *succus* on its surface, which, as it were, paralyzes the leucocyte, and this may account for the observations of CARTER just mentioned. He considers that its proliferation in the blood may proceed uninterruptedly to a certain extent, but with its entrance into the red blood corpuscle, the microbe loses its power of resistance to the leucocytes.

Such, in brief, are the most recent data respecting the microbes of malaria, for which summary we are mainly indebted to MRS. PRIESTLEY'S article.

ANCIENT AND MODERN SUPERSTITION IN MEDICINE.

Dr. MALCOM MORRIS (Pop. Sc. Mo.) has indicated some points in which mysticism, which was one of its predominant features in the middle ages, still lingers around the profession and practice of medicine. "There remains in the people" he says, "a belief in the efficacy of drugs as drugs—a belief that, as for every bane there must be an antidote, so for every disease there must be a curative leaf or root. Nature is distrusted; disease is still represented by some evil influence to be exorcised. In the popular mind disease walks the earth as a devouring fiend, and has a personality about it as of old. The phrases 'stricken with disease,' 'visitations,' and 'seizures,' are survivals of the conceptions of primitive times. * * * The mysticism survives in the courtly phrase and the ambiguous language of the modern practitioner. When sorely pressed by the sick man, the physician's only armory is equivocation, from which he draws such verbal weapons as 'the state of the constitution,' 'the tone of the body,' 'the general health,' 'lowered vitality,' and all that kind. * * * Are these not in some sort a survival of the circle of the horoscope?"

The profession is also at disadvantage because of skepticism, reacting from the implicit faith in drugs of the olden times, which "repudiates all aids and accessories: briefly it states its deliberate opinion that disease is infinitely better left to itself. The natural physiological energy of the body is the prime element in the healing process. This is neither more or less than modern fatalism—waiting on events. Such a doctrine if successful would be fatal to medicine." A third evil under which it suffers is materialism, which so far as the profession is concerned "may be carried to an injurious extreme. In modern pathology for instance, as originated by the German school and taught by its apostles, while men are actively contesting as to the nature or formation of a certain cell—whether it be spindle-shaped, round, or ovoid: whether it be derived from this tissue or that—they are likely to loose sight of the real bearings of the case. By all means respect facts, and you cannot show better respect for them than by using. A medical inquirer is not a mere collator. Collect your facts and then reason from the data you have established. *A collection teaches nothing until it has been arranged.* The tendency at present is, in the majority of instances, to collect everything, and to arrange, and to adduce nothing."

THE INVIGORATING PROPERTIES OF SEMEN.

BROWN-SEQUARD has recently made some experiments on himself* which, if they do not lend confirmation to the ancient notion of the invigorating properties of semen, at least indicate certain strange phenomena attending the absorption of the products of testicular secretion. He took the testicles of dogs just castrated; by compression and washing he extracted from these glands a liquid which he subcutaneously injected in other animals and in himself. The injections in animals were made to ascertain whether there were any danger in the injections; they were found to be innocuous.

These injections are extremely painful at first, and are followed by considerable local inflammation, not however, by suppuration. The physiological effects are, nevertheless very striking. "All that I have no longer been able to do," he says, "or that I have done poorly for many years past by reason of my great age, I am able to-day to do very effectively. I was afflicted with an obstinate constipation, due to paresis of the colon and

* Societé de Biologie, June 1st, 1889.

rectum; now my bowels are perfectly regular, without the necessity of any laxative; I urinate passably well, and the projectile force of my jet of urine has tripled, which proves that my bladder has recovered its former vigor. I have had a similar experience with regard to my other organs, as well as my limbs. I can remain standing for three hours without feeling the least sense of fatigue. But this is not all; I am in a better condition for work than ever. For a long time it was impossible for me to apply myself to any brain work in the afternoon, now I can indulge in my ordinary tasks without difficulty, consequently, there is both an increase of physical and mental vigor, which I owe to these injections; I am really thirty years younger thereby."

BROWN-SEQUARD does not know what particular elements of the testicular liquid produced on him these wonderful results, but contents himself with a simple statement of the facts. He believes that there is something about the products elaborated in these seminal glands which is of a peculiarly vivifying nature, and appeals in support of the view to the difference in vivacity and vigor between geldings and stallions, to the effeminacy of eunuchs, and to the languor and debility which sometimes characterize newly married people in whom there is an excess of expenditure of seminal secretion.

ANTISEPTICS AND FOOD.

It has become common in trade to apply antiseptics to perishable foods in order to preserve them, salicylic acid being probably the most used. "It is important," says W. J. YOUMANS, "that it should be ascertained what the effect of the addition is upon the quality of the food and upon the digestive functions." LEHMAN declares that salicylic acid does not usually contribute any injurious quality, but at the same time apprehends the indiscriminate use of such substances may be dangerous.

Recently, experiments were made by the Department of Agriculture at Washington to determine what retarding effect upon digestion is exhibited by salicylic and boric acids, sodium acid-sulphite, saccharin, beta-naphthol, and alcohol. The results proved that the first, as well as saccharin, prevents the conversion of starch into sugar under the influence of either diastatic or pancreatic ferment, but does not seriously interfere with peptic or pancreatic digestion of albumen. Sodium acid-sulphate, and acid boric are practically without influence. Beta naphthol interferes decidedly with the formation of sugar by diastase, but not with the action of pancreatic extract on starch; while peptic and pancreatic digestion of albuminoids were almost prevented. Further evidence showed that these articles were with difficulty had in perfect state of purity, and that their indiscriminate use, without sanitary inspection, should not be allowed.

Book Notices.

SURGERY, ITS PRINCIPLES AND PRACTICE. By T. Holmes. M. B., Cantab. Surgeon to St. George's Hospital, etc, Philadelphia, Lea Bros. & Co. 1889. 8 vo.; 1000 pp.; price, sheep $7.00.

The author states this volume is intended to be to some extent an introduction to his more elaborate System of Surgery, from which the material has been largely drawn. Be this as it may, the work is superior to the System as being more available for reference. There is nothing of immediate value in the former that is omitted in this; further, it is more concise with less attention to minutiæ of details and argument upon mooted points. The System is perhaps the best work for the prolific writer, compiler, and author, but the Principles and Practice is by long odds the best work for the general practitioner.

We observe no reference is made to diseases of the eye. This is as it should be, for ophthalmology of late years has assumed such proportions as to demand separate and specific treatises; even the outlines are too extended to admit of satisfactory presentation in a textbook of general surgery.

We note also that DR. HOLMES still holds to the idea leprosy is a non-contagious disease, which a goodly share of modern pathologists are disposed, and certainly on good grounds, to deny. In speaking of antiseptics too, he reaffirms, and we believe justly, the value of iodoform and oil of eucalyptus, both of which, of late seem to have been relegated to the back ground by the bi-chloride. When the negative evidence begins to come in regarding the mercurial salt, it is safe to predict that many will fall back upon iodoform, which, in spite of the attacks made upon it, is undoubtedly one of the best of antiseptics. It is somewhat remarkable that no mention of potassium permanganate is made, especially as chloride of zinc, which in many respects is inferior, and frequently dangerously caustic even in weak solution, receives extended consideration.

Taken as a whole, this is the most practical surgical work of the decade.

THE TREATMENT OF THE MORPHIA DISEASE. By Dr. Albrecht Erlenmeyer. Physicians' Leisure Library Series. Pp. 114. Published by Geo. S. Davis, Detroit, Mich. Price, paper 25c; cloth, 50c.

This little brochure is a timely one at this juncture when the ravages of morphinism are receiving so general consideration. Probably there are few physicians of any considerable

period of practice that have not been called upon at some time to relieve an opium habitué or morphino-maniac from this bondage, and with almost invariably an unfortunate result. There are few conditions of misery more poignant; individual control and responsibility is gone; the patient is alike treacherous to himself and to his medical advisor. The percentage of reformed alcoholics is several hundred percent greater than of morphinists, for the instances are few and far between where the victim of opium or its alkaloid possesses the will power necessary to aid the physician in eradicating the habit. Then, again, relapses are far more frequent, and almost, if not always, fatal to further reform.

This book aims to give in a plain and practical way, the theory of morphinism as advocated by ERLENMEYER, which the translator, DR. E. P. HURD, has succeeded in presenting in a most clear and concise manner. Of especial interest is the chapter devoted to Prevention of Relapse; also the appendix on ZAMBACO'S method, and the criticisms thereon.

AMERICAN SYSTEM OF OBSTETRICS, VOL. II. Edited by Barton Cooke Hirst, M. D.
Philadelphia: Lea Brothers & Co. 8vo. pp. 850.

We note among the contributors to this volume, beside the editor, Doctors JNO. C. CAMERON, of Montreal; EDWARD P. DAVIS, G. E. DE SCHWEINITZ, ROBT. P. HARRIS, JAMES H. LLOYD, and THEOPHILUS PARVIN, of Philadelphia; HOWARD ERNST, of Boston; HENRY J. GARRIGUES, J. LEWIS SMITH, and STEPHEN SMITH, of New York; an array of talent that sufficiently evidences the value of the work. Indeed, the scope is such that it would be impossible to do the volume justice in the limits of an ordinary review.

Exactly why the title should be limited to *Obstetrics*, when, as is the case with the present volume, nearly or quite one-third is devoted to the ailments of infancy, we fail to understand; yet it must be admitted that the class of maladies treated of belong to the border line between Obstetrics and Pediatrics.

Dr. HOWARD ERNST'S exposition of the Etiology of Puerperal Fever is masterly; and The Management and Diseases of the Newborn, by J. LEWIS SMITH, is a master piece of conciseness, and replete with information.

ERRATUM.—The publishers of Buck's New Manual of Diseases of the Ear, Messrs. Wm. Wood & Co., call our attention to an inadvertent misstatement made by our reviewer in noticing this book in the AGE of May 25th. The reviewer had the impression that this book was sold by subscription only. The publishers now advise that this is an error, in as much as the book is sold like all their other text-books, through the trade or such of them as choose to handle it, and not by subscription.

Notes and News.

Intolerance of Antipyrin.—As antipyrin is at the present time so frequently prescribed for numerous ailments, I think it may be interesting to describe a case of intolerance of the drug, which in some respects differs from any which I have seen recorded.

On May 31st last, I prescribed for a case of sciatica, occurring, in a man aged about 50 years, five-grain doses of antipyrin, to be taken three times daily. He took the first dose (which, he says was not quite a full one) at about 11.30 A. M. He instantly experienced a sensation of tingling and burning in his gums, which rapidly extended to the throat and nose, accompanied by sneezing, running from the eyes and nostrils, dizziness, complete loss of vision, a feeling of numberless pins pricking him down each side of the neck, tightness in the throat and dyspnœa. His wife came to his assistance about one minute after he had taken the dose, and saw that his face was much swollen and "black." The pin-pricking sensation extended rapidly down the right side of his chest and abdomen, and was particularly severe in the right side of the scrotum and right testicle, and was also felt in the legs and feet—severely in the right and slightly in the left.

He next experienced a sensation as if the contents of his thorax and abdomen were being forcibly drawn upwards towards his throat, and the right testicle towards the abdomen; so that, he says, he "was drawn in a ruck," and, being no longer able to stand, he fell on the floor. He trembled violently all over, and had cramp in his right arm and hand.

I was hurriedly summoned, and arrived at 11.45 A. M., fifteen minutes after he had taken the dose. I found him sitting on a chair with his head resting on the back of it, declaring that he was unable to remain in a recumbent posture. His face was a dusky red color; his nose, lips, and eyelids were so swollen as to render his features quite unrecognizable; eyes suffused and running, breathing hurried and difficult; he was trembling violently all over and the fingers of his right hand were clenched in the form of a claw. Pulse scarcely perceptible.

I at once gave him some brandy, when he immediately expressed himself as better. He spoke in a thick, husky tone of voice, and complained of dizziness and a fulness in the throat. I looked into his mouth and found the soft palate red and swollen, the uvula swollen to an enormous size and œdematous; the back of the pharynx was also swollen and red. No rash appeared on the skin.

The symptoms gradually subsided, with the

exception of soreness and a sense of fulness in the throat, difficulty of swallowing, huskiness of the voice, and dizziness—all of which continued, more or less, till bedtime. He complained for some hours of a peculiar taste in the mouth, coming on at intervals, which he compared to "the sulphur gas in the chemical works" in which he had been employed. The following day, with the exception of slight headache and loss of appetite, he had completely recovered.—CHARLES S PURDON, M. B. in *British Med. Jnl.* June 15, '89.

The Old Oaken Bucket.—

With what anguish of mind I remember my childhood,
Recalled in the light of a knowledge since gained;
The malarious farm, the wet, fungus-grown wildwood,
The chills then contracted which since have remained;
The scum-covered duck-pond, the pig sty close by it,
The ditch where the sour smelling house drainage fell;
The damp, shaded dwelling, the foul barnyard nigh it,
But worse than all else was that terrible well,
And the old oaken bucket, the mould crusted bucket,
The moss-covered bucket that hung in the well.

Just think of it! Moss on the vessel that lifted
The water I drank in the days called to mind.
Ere I knew what professors and scientists gifted
In the water of wells by analysis find:
The rotting wood fiber, the oxide of iron,
The algæ, the frog of unusual size,
The water impure as the verses of Byron,
Are the things I remember with tears in my eyes.
And to tell the sad truth, though I shudder to think it,
I considered that water uncommonly clear,
And often at noon when I went there to drink it,
I enjoyed it as much as I now enjoy beer.
How ardent I seized, with hands that were grimy,
And quick to the mud-covered bottom it fell;
Then reeking with nitrates and nitrites, and slimy
With matter organic, it rose from the well.

Oh! had I but realized, in time to avoid them,
The dangers that lurked in that pestilent draught,
I'd have tested for organic germs and destroyed them
With potassic permanganate ere I had quaffed;
Or perchance I'd have boiled it, and afterward strained it
Through filters of charcoal and gravel combined;
Or, after distilling, condensed and regained it
In potable form, with its filth left behind.
How little I knew of the dread typhoid fever
Which lurked in the water I ventured to drink;
But since I've become a devoted believer
In teachings of science, I shudder to think.
And now, far removed from the scenes I'm describing,
The story for warning to others I tell,
As memory reverts to my youthful imbibing,
And I gag at the thought of that horrible well,
And the old oaken bucket, the fungus-grown bucket,
In fact, the slop bucket that hung in the well.

—*J. C. Bayles, Pres. N. Y. Board of Health.*

Honors to Professor Billroth.—On the 26th of April, PROFESSOR THEODOR BILLROTH completed his sixtieth year, but he was absent from Vienna at that time. The Vienna students, together with his known "disciples" and friends, prepared a splendid ovation for him on the 6th of May, when the distinguished master commenced his lectures for the summer semester. At half-past nine A. M., PROFESSOR BILLROTH, accompanied by his two assistants, appeared in the lecture room which was splendidly decorated with flowers. The students and numerous physicians present, who completely filled the auditorium, received him with repeated and enthusiastic exclamations of "*Hoch*" and "*Prosit.*" One of the students then addressed the distinguished surgeon in the name of the Vienna students, and he responded in a long and eloquent speech. Among other things, he referred to the imperfection of the healing art with respect to tuberculosis and the malignant neoplasms. Mechanics ("technics") could hardly help us any more; it was chemistry which had to invent new remedies able to kill the tubercle bacilli which had penetrated into the organism, and others which could check the further development of the neoplasms without damaging the whole organism. These were, according to the speaker, the most important tasks of the future.

DR. SJSRGERWITCH, Minister of Public Instruction of Servia, presented PROFESSOR BILLROTH with the Grand Cross of the St. Sava Order, and the Vienna students presented him with a medal which bore on one side his portrait, with these words: *Theodorus Billroth, ætatis suæ lx;* on the other. *Medico artifici, viro optimo pietate conjuncti discipuli et sodales.* PROFESSOR BILLROTH was also the recipient of several other distinctions on this occasion.

Cigarette Smoking.—PROF. W. S. DUDLEY (Pop. Sc. Mo.) declares the pernicious effects arising from cigarette smoking are chiefly due to the *manner*, and not to impurities, as is currently supposed. "With cigarettes, to obtain the desired effect, the smoke is inhaled—is respired—whereas in smoking pipes and cigars the smoke is simply drawn into the mouth and then expelled. In experiments on small animals, in which they were caused to breathe air containing cigarette smoke, it was found that after a mouse had smoked one and one-fourth cigarettes, life was extinct; examination of the blood showed that it had died from the effects of the carbon monoxide which was contained in the smoke, and not from the nicotine and other volatile products of the tobacco and paper."

AS PROF. DUDLEY gives no explanation of how the mouse was made to breathe the smoke, the query naturally arises, whether it (the smoke) was not exhaled from the lungs of the smoker—which fact, and not the cigarette, would provide the necessary carbon monoxide to secure poisoning. Again, burning cigarettes under a bell glass in which a mouse was confined, if sufficiently slow for experimental purposes, would also promote the formation of carbonic acid gas in the atmosphere, irrespective of the cigarette itself, while the animal would be forced at the same time to respire this gas as exhaled from its own lungs.—ED.

When Medicines Should be Administered.—In respect to the time when medicines should be administered, R. CHRISTISON states as follows: Alkalies should be taken before eating, iodide and its combinations when the stomach is empty, because they are then more quickly absorbed. During digestion they would be modified by acids and substances containing starch, and weakened in their action. Acids should be taken during digestion, because the stomach is then most capable of transferring them to the blood; only when the stomach itself secretes too much acid, should they be taken before eating. Powerful medicines (arsenic, copper, zinc, etc.) should be taken after eating; nitrate of silver, before; sublimate, tannin, alcohol should enter the stomach when it is at rest. Phosphate, cod-liver oil, malt extract should be taken during eating, in order to be digested together with the foods.—*Pharm. Centralhalle*, May 30, p. 342.

Plagiarism.—The multitude of duties that fall to the lot of the editor sometimes preveut the close scrutiny of contributions that is desirable. It was under such circumstances that an article under the caption of "How to Choose a Doctor, by DR. HERBERT C. HARRIS, found a place in the AGE of March 25th, and which appears to have beeu plagiarized, "body, soul, and breeches," from the writings of the late HENRY WARD BEECHER.

We have had our attention called to the above fact by a number of readers of the AGE during the past few weeks, but the same cause that led to the admittance of the article, has operated to prevent notice being before taken of this breach of literary good mauners. We can only express the wish that "the punishment of the plagiarist may fit his crime."

Should the Physician Resign His Obstetric Practice While Treating Small-pox?—This question is suggested by J. A. WESSINGER, M. D., in June American Journal of Obstetrics. He answers it in the negative thus: "I believe that when the physician is thorough in both aseptics and antiseptics, he theu can introduce his hands into the abdominal, vaginal, or even uterine cavities without any particular danger to the life of his patient, no matter what other circumstances may be present." In confirmation of his opinion, he quotes that of DR. J. H. CARSTENS as follows: "Yes or no. It depends on your appreciation of antiseptic precautions; if you are *thorough* there is no danger. I would not hesitate to attend such cases, but I would use the *utmost* care in perfect antiseptics."

Medical Heroes.—That the medical profession is not without heroism and self-denial has been exemplified time and again by those who have sacrificed their lives for the benefit of individual patients, for public weal, and in the cause of science. News comes from France that GAUTIER, the famous pathologist, has succumbed to the ravages of tuberculosis, having contracted the disease from pulverizing infected tubercular material for the purpose of experimentation.

Increase of Cancer.—DR. F. B. JESSETT (Science Gossip), by comparison of deaths in England and Wales during various years, learns that the mortality from cancer has increased from 4,966 in 1850, to 13,542 in 1881 (more than 27 per cent.), with a death rate per million inhabitants of from 320 to 520. In view of these facts he declares, that instead of shirking the subject, it should be met by medical men, and the cause of mortality and its remedy sought.

Hospital for Medical Students in Vienna.—Le Progrès Médical states that a society has been formed in Vienna to provide for the comfort of students who are ill. A hospital is about to be established for their accommodation.—*Jour. Amer. Med. Assoc'n*, June 22.

DR. FRANK M. SCOTT, of Scandia, Kansas, who has been an occasional contributor to the MEDICAL AGE, died June 4th.

Therapeutic Brevities.

The Kola Nut.—The value of the kola nut (seeds of Sterculia acuminata) as a dietetic and therapeutic agent has been recently tested by Surgeon R. H. Firth. These nuts are allied in composition to cocoa, coffee, and tea, but contain a relatively large amount of caffeine. The properties ordinarily assigned to kola are those of a strong tonic and stimulaut to the nervous system, counteracting and removing sense of exhaustion after fastiug and fatigue; it has also been credited with having an antagonistic action to alcohol, and it has been said to purify water. From his observations Surgeon Firth concludes that kola is in no seuse a food; that it increases the total uriuary water, with a slight reduction of its total solids and a marked reduction of the extractive; that it has a peculiar stimulant actiou on the nervous system, temporarily strengthens the heart beat, and increases the arterial tension. In times of exertion and fasting it wards off the sense of mental and physical depressiou and exhaustiou. As a therapeutic ageut in convalescence, and as an antagonist to alcoholic sequelæ, kola has not yet yielded any positive results in Surgeon Firth's hands. For the purification of water it does not appear to be superior to other mucilagiuous seeds, its action being purely mechanical. In this report due prominence is given to the importance of separating seeds which contain no caffeine, such as Garcina kola and Sterculia cordifolia, as these would speedily discredit the employment of kola by the troops under conditions when it might possibly be of service. It appears that an infusion, from its astriugent action, might be used for those suffering from diarrhœa.

Iron for Children.—Although the value of iron tonics for children is well recognized, yet the usual formulæ in which they are prescribed are most unpleasant and difficult to administer. The following are quoted from the Revue Gén. de Clin. et de Thér., May 9, 1889, and will be found both pleasant to take and effective:

1. Effervescent ferruginated lemonade. The two mixtures are added to each other at the moment of drinking:

Mixture A.

℞ Citrate of iron, gr. ix.
Citric acid, gr. xij.
Water, f ℥ ij.
M.

Mixture B.

℞ Bicarbonate of potash, gr. xij.
Syrup of lemon, ℥ ijss.
Water, f ℥ jss.
M.

The above is sufficient for two doses.

2. Pills of pepsin and iron. Tanner prescribes two of the following pills for children three years of age:

℞ Reduced iron, 19 grains.
Phosphate of zinc, 9 grains.
Pepsin, 19 grains.
Glycerin, q. s.
Make into twenty pills.

3. The following is also always easily administered and greatly liked by the little ones:

℞ Hydrated peroxide of iron, ℥ j.
Confection of orange } ää ʒ v.
Confection of opium }
M.

Dose, from one-half to one coffeespoonful, according to age. The above is highly recommended by Dr. Ellis.

The Treatment of Granular Conjunctivitis by Corrosive Sublimate.—Arnauts (Annales d' Oculistique, Jan.–Feb., 1889) gives some records of the results obtained in the treatment of trachoma, by corrosive sublimate, at the clinic of Dr. Romiée, during three years. His experience is strongly in favor of this remedy, in preference to the more commonly used nitrate of silver, sulphate of copper, and other caustics and astringents. He is especially pleased with its effect in old chronic cases, with severe pannus; and states that the disappearance of the corneal vascularity is so rapid that it suggests some special action of the sublimate on the newly formed vessels.

The following is the method employed. The patients are seen, if possible, twice a week, and at each visit, after instillation of a few drops of a five per cent. solution of cocaine, the conjunctival surface of the lids is brushed with a solution of corrosive sublimate, 1 to 120 or 1 to 100. In addition, collyria of the same salt are given, of the strength of 1 to 500 or 1 to 400, which the patients are directed to drop into the conjunctival sac three times daily. These drops give rise to some irritation and conjunctival injection, which are said to pass off in a few minutes. In sensitive patients, a weak solution of cocaine may be previously applied.

In the Recueil d' Ophtalmologie, for Feb., 1888, Staderini, writing on this subject, gave a very favorable account of his experience of the use of corrosive sublimate, stating that the results obtained by its employment in all stages of granular conjunctivitis were very satisfactory. He suggested that its action was that of an antiseptic, and a solvent of the lymphoid infiltration in the submucous tissue. If the microbe described by Sattler, Poncet, and others, be the chief or sole cause of trachomatous conjunctivitis, corrosive sublimate should prove of great efficacy in the treatment. —*Ophthalmic Review.*

Shepherd's Purse as a Hæmostatic.—Dr. K. E. Wagner publishes in Vrach some observations which tend to show that the capsules of shepherd's purse (capsellæ bursæ pastoris) when made into a tincture have very considerable hæmostatic properties. The cases were of different kinds, two of them being of uterine hæmorrhage, two of hæmoptysis, and one of epistaxis. In all these a marked effect was produced, the hæmorrhage being either entirely arrested, or at least very greatly diminished. No unpleasant effects, such as headache or dyspnœa, were observed, even when three tablespoonfuls of the tincture were taken in the course of twenty-four hours, the usual dose being from four to six teaspoonsful.

A correspondent of the Lancet, June 9th, 1889, further writes:

Dr. Wagner's observations on the hæmostatic properties of capsules of shepherd's purse when made into a tincture (the Lancet, June 8th, 1889, p. 1157) are confirmatory of the properties of the plant as described by Dr. Caleb Threlkeld in his "Synopsis Herbarium Hibernicarum, Dublin, 1727," who, under the names of "bursa pastoris major, folio sinuato, shepherd's purse, pickpurse, and caseweed," says: "It is cooling, incrassating, and good in all sorts of fluxes, spitting of blood, bloody urine, violent floodings. Nature sports wonderfully in the fashion of the leaves of this plant. It certainly cures a gonorrhœa, according to Simon Paul. I suppose he did not mean the virulent one, which is too stubborn for any one vegetable."

[In the department of Mat. Medica in Encyclopœdia Britannica, 3d (Scotch) edition, 1792, practically the same claims are made; also in the French Pharmacopœia for 1791. It has been employed as a domestic remedy in Scotland for upwards of a century, and more. ED.]

Glycerin Suppositories.—The value of glycerin as an evacuant when introduced within the rectum in the form of a suppository is fully established. Its action is never violent but always prompt and reliable. It is especially applicable to relieve constipation in weak, delicate patients where cathartics are too exhaustive. In fevers, especially typhoid, with constipation, it will be found very valuable. Various theories of its action are held, one that by virtue of its hydroscopic nature, water is absorbed from the mucous membrane. Again, it is thought to act as a local irritant and thereby stimulate the muscular coats of the rectum; probably, however, the result is due to the action of both qualities. Suppositories may be made by rub-

bing thirty to fifty grains of glycerin with cacao butter, or incorporating it with gelatin, but the most efficient suppositories are those prepared by Parke, Davis & Co. The greater activity of their manufacture is due to these containing a large percentage of glycerin. Professor V. A. Manassein, of St. Petersburg, has carefully studied forty cases with reference to the amount of glycerin requisite to produce free evacuation, and concludes that suppositories containing less than 46 per cent are unreliable.—*Ther. Analyst*, June, 1889.

The Use of Rhus Aromaticus in Incontinence of Urine.—According to a recent number of the Union Médicale, quoting from the Archives Médicales Belges, Dr. Burdenich, of Gand, has tried *Rhus aromaticus* in 33 cases. He obtained an excellent result in 11, a satisfactory result in 10, and a result of little importance in the remaining 12 cases. The good effects of the medicine were not felt until the fifth or sixth day, and sometimes not even until the end of the third or fourth week. Dr. Burdenich considers *Rhus aromaticus* to be a powerful tonic analagous to nux vomica. Given in doses of about 38 grains a day, it rendered urination easy and continuous in the case of a man 75 years old, who had partial paralysis of the bladder without contraction of the urethra or hypertrophy of the prostate. Dr. Numa, who thinks that the drug excites muscular action in the bladder, the uterus, and the lower part of the intestinal canal, gives 10 drops of the tincture to children from two to six years old, and 15 drops twice a day to older children. He thinks that the tonic effects do not persist. Dr. Hamon has succeeded in preventing children from urinating in bed by giving them a dose of from 20 to 60 drops of the tincture at bedtime.

The Dose of Male Fern.—The British Medical Journal calls attention to the fact that the dose of liquid extract of male fern given in the British Pharmacopœia, ℥ xv to ℥ xxx, is much too small. Dr. Bristowe, in his "Theory and Practice of Medicine," gives the dose as ʒ ss. to ʒ ij; the dose in use at Guy's Hospital is said to be ʒ j to ʒ jss.; Professor Gerhardt recommends for *Tænia solium* ʒ ijss. to ʒ iij; for *Tænia mediocanellata*, ʒ iijss. to ʒ iv. In a list of 27 cases treated by Dr. J. O. de Man with even more heroic doses, the largest dose recorded was somewhat above ℥ j, but about ʒ vj seems to be the usual dose for an adult, and from ʒ iij to ℥ ss. for a child of twelve. Although Dr. de Man says that he has observed no unpleasant symptoms follow these large doses, it is not clear that they are entirely free from danger. The Pharmaceutical Journal and Transactions for October 14, 1882, is cited as recording a fatal case that occurred in Ceylon: A man took a draught containing ℥ jss. of liquid extract of male fern, in two doses of ʒ vj each, at an interval of three or four hours; violent vomiting and purging ensued, and the patient died in a few hours.

"*A New Method of Treating Dipsomania.*"—The hypodermic injection of strychnine in doses of one-fortieth of a grain once daily, described by Dr. Allwright as "a new method of treating dipsomania," can hardly be accurately called "new," as it has for years been announced in lay journals as a "perfect cure." Though I have found the administration of strychnine in pill and mixture as efficacious as by hypodermic injection, and of considerable value, I should be sorry to claim for strychnine the marvellous virtues which your correspondent, in common with non-medical journals, ascribes to it. If these claims are well-founded, then the hypodermic injection of strychnine is a remedy beside which all other medicinal remedies must "pale their ineffectual fires." For no disease has there ever been propounded so alleged unfailing and wondrous a panacea!—Norman Kerr in *London Lancet*.

Treatment of Granular Lids.—Dr. F. M. Scott writes the Kansas Med. Index as follows: I have had good success in treating granulated lids by brushing the conjunctiva's surface three or four times a week with a solution of nitrate of silver, five grains to an ounce of water, and immediately washing it off with a weak solution of salt and water; and having the patient instill into the eyes, once a day, five drops of the following:

> Boracic acid, gr. xv.
> Tannic acid, gr. x.
> Glycerin, ʒ iss.
> Rose water, q. s. ad. ℥ j.

Two cases were quite bad and of long duration, having considerable degree of pannus. I like the weaker solutions of silver better than to risk those stronger than five grains to the ounce.

Cancrum Oris Successfully Treated by Local Applications of Corrosive of Sublimate—Drs. Peter Yates and E. C. Kingsford report three cases of severe cancrum oris in children in the Lancet of May 4, 1889, which were cured by application of corrosive sublimate. The affected parts were wiped off with a strong solution of perchloride of mercury (1 to 500), and afterward dressed with lint soaked in a similar solution (1 to 1000). The beneficial effects of this treatment were immediately observable; healthy granulations soon made their appearance, and the wound quickly contracted. As soon as a healthy condition of the wound was insured the treatment was discontinued, and simple dressings substituted.

Bromidrosis.—The medical department of the Ministry for War (France) has just recommended the application of chromic acid as a cheap, successful, and non-injurious remedy for preventing undue perspiration of the feet. The skin of the feet is painted with a 5 to 10 per cent. solution of chromic acid, the application not needing to be repeated for two or three weeks, and even not for six or eight weeks in some cases. Before the order was issued the remedy was tried on 18,000 soldiers with the best results.

Medical Progress.

On Topical Remedies for Disorders of the Anus and Rectum.—During the act of defecation in the healthy condition of the bowel, the blood-vessels around the orifice are distended, and slight protrusion of the mucous membrane takes place, and, whenever the muscular tension and vascular turgescence of the part are habitually prolonged and severe, the very conditions are present which promote the development of hæmorrhoidal troubles. In cases of ordinary constipation, and prior to the expulsion of hardened accumulations, some softening or lubricating agent may with great advantage be introduced into the rectum, and for this purpose I strongly recommend a smooth and creamy mixture of boracic ointment, glycerin, and lanolin.

In relaxed conditions of the anus and rectum, with a tendency to prolapse, prolonged efforts during evacuation distend the dilated vessels, aggravate the varicose state of the anus and increase the local distress. Straining at stool must at all times be carefully avoided. It is a good plan to get a regular action of the bowels just before going to bed, instead of early in the morning, for then, during the repose of the night, the intumescence of the organs has time to subside. Immediately after an evacuation the anus should always be washed, and the well-soaped hand is the best instrument for the purpose. Habitual cleanliness is one of the most effective ways of preventing hæmorrhoidal disorders. The irritating secretions and mucous from the orifice of the gut are removed, and friction tends to brace up the part and empty the distended vessels. There is no region of the body which really requires so much sanitary attention, but, even in these days of hygienic enthusiasm, it is too often the last to be cleansed.

The affection commonly styled "piles" is in many cases, nothing more than soreness and irritation of the anus, produced by daily neglect and local impurity. When the surrounding skin is healthy any ordinary soap may be selected for washing purposes. Sometimes the folds of skin around the orifice are swollen and irritable, and often external hæmorrhoids cause a great deal of irritation. In persons of full habit a local erythema is very common, extending over the nates. The skin is red and moist, and by friction it becomes tender and excoriated. The disorder is generally easily cured by careful attention to the part after every evacuation. I have used with great success well-washed soft soap made into a smooth compound with the alcoholic solution of coal-tar, or the oil of cade or eucalyptus globulus. After the lavement the part must be carefully dried with a soft towel, and dusted with a fine powder composed of carbonate of bismuth, oxide of zinc, and starch.

In cases of chronic gout, and in other constitutional derangements, an obstinate form of eczema attacks the anus and genital organs, and the tormenting itching which attends the disease causes persistent scratching and excoriations. Sometimes the skin becomes infiltrated and fissured in the direction of the normal radiating folds. This disorder cannot, of course, be treated apart from the constitutional condition with which it is associated; but the daily use of the soap I have mentioned is often followed by remarkable benefit. The drying powder may then be applied over the part, or a little of the boracic ointment gently rubbed in.

The local treatment of prolapsus ani and hæmorrhoidal disorders is a matter of daily importance. In acute inflammatory affections of the anus, rest in bed should be maintained, and the patient will be much relieved by sitting two or three times a day in a hot carbolized bath.

In all cases requiring washing and irrigation, I recommend the use of a very convenient contrivance. It consists of a metal pan with a deep well in the bottom, and it is supported on short legs. The patient sits on the side of this well, so that the anus and genital organs can be completely bathed. It is especially serviceable in inflammatory disorders of the bowel, and after operations for hæmorrhoids and fistula. It is fitted with inlet and outlet pipes for continuous irrigation—a mode of treatment I adopt after all rectal and perineal operations at the Royal Portsmouth Hospital, and I hope to describe its utility in these cases on a future occasion.

Whenever internal piles come down during defecation, they must always be carefully washed and returned. In prolapsus ani the protrusion should also be carefully pushed back directly after the stool has escaped. Many of my patients, laboring under aggravated troubles of this sort, have experienced much relief by using for a few weeks a bed-pan in the horizontal position. At all times the inconveniences attending the act of defecation may be alleviated by introducing into the bowel a lubricating agent to prevent undue straining, and to facilitate the escape of the motion, and for this purpose the antiseptic compound which I have mentioned is admirably adapted. The anus should be carefully washed and a little stimulating ointment put into the bowel to check excessive secretion, and to rouse the mucous follicles to more healthy activity. I often employ a remedy containing a little oxide or subchloride of mercury and a few grains of iodoform. If pruritus ani is troublesome, cocaine may also be added with much advantage.

Hæmorrhage is often a very prominent symptom in many of the common disorders of the rectum. The quantity of the discharge varies a great deal in different cases. At all times the amount of blood lost at each evacuation must be carefully ascertained. Sometimes the fæces are only smeared with spots and streaks of blood, while at other times the loss is very considerable and alarming.

Whenever free bleeding has suddenly occurred, or the drain has continued for a long period unchecked, the case is not one for mere palliative treatment, but ought to pass without delay into the hands of the surgeon.

In many cases, however, of moderate severity, the daily use of local remedies will be followed by great benefit. The same diligent attention to cleanliness after an evacuation must be practiced, and then an ointment containing persulphate of iron should be carefully applied to the diseased surface. The fluid extract of witch-hazel is also very efficacious remedy. When a very powerful hæmostatic is required, the persulphate may be added to the

hazelin with great advantage. I generally order two drachms of this solution, diluted with a little water, to be used regularly for two or three weeks. For all cases of hæmorrhage, rest in the horizontal position after defecation is extremely desirable, as it tends to relieve the local congestion, and to promote the astringent action of the remedy.

One word respecting the value of anodyne applications. The distressing pain which attends the evacuation of the bowels in some diseases, and continues for hours after, often demands local palliative treatment. Many cases of pain and spasm of the orifice are greatly relieved by the topical use of cocaine; but, after many trials, I found a combination of morphine and cocaine more generally useful. The application of this compound sedative often acts like a charm, and quickly gives relief. The suffering caused by fissure of the anus and ulceration within the sphincter is rendered bearable by this remedy, and in recent cases I have sometimes found its use, combined with digital dilatation, rapidly followed by permanent cure, without any other surgical interference. It is invaluable in the treatment of stricture of the rectum, and it should be introduced into the bowel ten minutes before the use of the dilator. In chronic ulceration and malignant disease it can be freely employed as a palliative remedy and, in fact, in all cases in which pain and hyperæsthesia are prominent symptoms.—John Ward Cousins, M. D., London, F. R. C. S., in the *Provincial Medical Journal*, Halifax, Eng.

LEUCORRHŒA—ITS MEDICAL AND SURGICAL TREATMENT.—R. Waldo, M. D., in Int. Jour. of Surgery, June, '89, thus presents his views of the treatment of leucorrhœa:

Anything that causes congestion of the pelvic organs will increase a leucorrhœa, so your patient should be warmly clothed; if there is constipation, her bowels should be kept regular by the daily administration of salines in sufficient quantity to produce one or two good movements during the twenty-four hours. I prefer a glass of "Hunyadi water" or a teaspoonful of "Rochelle salts," in a glass of hot water the first thing in the morning. At present a very popular and good laxative for these cases is a teaspoonful of "compound licorice powder" taken in a little water just before going to bed. The use of the same laxative should not be continued too long.

It is necessary to see that the stomach is in good condition.

All of these cases require local treatment, and as it varies, so it is necessary to go over the subject somewhat in detail. In acute vaginitis, twice a week I thoroughly apply the following to the vagina:

℞ Argenti nitratis, gr. xxx.
Aquæ, f. ʒ i.

A tampon covered with vaseline is then introduced and allowed to remain for 12 hours; furthermore, the patient is instructed to take a vaginal douche every night that shall consist of a teaspoonful of alum or two teaspoonsful of boracic acid to a pint of warm water. Later, when the disease becomes less severe, the vagina is thoroughly packed with cotton tampons that are covered with and contain as much powdered boracic acid as possible. It is impossible to use too much powdered boracic acid, and in fact I frequently put a teaspoonful of powder into the vagina before using tampons. The tampon is allowed to remain in the vagina for two days; and between the applications, which are made twice a week, the above douche is used. In all of these cases it is necessary (as much as possible, by means of the tampon) to prevent the surfaces of the vagina from rubbing against each other.

When the endometrium is involved, your treatment is altogether different. First, in all stages, you must be sure that the cervical canal is sufficiently patulous to admit of free drainage, and in many instances it will be found necessary to use dilators, but under no circumstances tents. During the acute stage, three times a week, the vault of the vagina should be painted with "Churchill's tincture of iodine" and an ounce of the following:

℞ Boroglyceride, f. ʒ j.
Glycerin, f. ʒ iij.

This should be warmed and injected into the vagina every night, after which a napkin is applied so as to prevent as much as possible of it from escaping. In addition a vaginal douche, of two quarts of as hot water as the patient can stand, should be given, while in the dorsal position, three times a day. If boroglyceride cannot be obtained, plain glycerin may be used in its place. When the disease is more chronic and the cervical endometrium is especially affected, application of "Churchill's tincture of iodine" should be made to it and the vault of the vagina three times a week, followed by tampons saturated with glycerin or, better, the above mentioned boroglyceride mixture. A hot water vaginal douche of at least two quarts should be used twice a day.

The tampons should not be made of absorbent cotton, but of some nonhydroscopic material, as lamb's wool or "surgeon's cotton," which is simply clean non-absorbent cotton.

In very obstinate cases the cervix should be thoroughly dilated (under ether if necessary), and a strip of iodoform gauze passed into the uterus, and allowed to protrude from the external os. This is for the purpose of establishing free drainage. It should be done twice a week. Of course it will not be necessary to administer an anæsthetic more than once, although the dilators should be carefully used each time that the application is made. In many instances, when fungosities are present, "Thomas' dull curette" will be found of great value.

For salpingitis, without complicating endometritis or vaginitis, excepting a surgical operation, the only thing that can be done is, three times a week, freely paint the vault of the vagina with "Churchill's tincture of iodine," apply glycerin tampons, and use copious vaginal douches of hot water. If you have a case of hydrosalphinx to deal with, it may be cured; but, on the other hand, if it is pyosalphinx, I very much doubt your ability to do so, although benefit will be derived from local applications. If a tube is distended with pus, the physician who does not advise its removal by abdominal section falls short of his duty, for at any time it is liable to rupture and cause a fatal general peritonitis, and I be-

lieve that many so-called cases of "idiopathic peritonitis" have a similar origin.

I am well aware that the subject "leucorrhœa" has been only superficially touched upon; but to exhaustively describe all of the conditions that produce it would scarcely omit a disease that the uterus and its appendages are heir to, and would include many others.

RECURRENT HEADACHE IN CHILDREN AND ITS TREATMENT BY ERGOT.—It is not uncommon to see children complaining of headache whose general health is apparently good. Such children are troubled with headache, more or less severe, recurring at intervals of days or weeks. You will generally find that the child has been subject to these headaches for a year or more before treatment is sought for this particular symptom; as a rule, it will be found that the patients are of nervous temperament; that they do not sleep well; that they grind their teeth at night, and frequently suffer from bad dreams and nocturnal terrors. Sometimes they have spasmodic cough, particularly at night, even if there be no sign of pharyngeal or laryngeal irritation sufficient to account for such cough. It may be noticed that the child dislikes to keep quiet, and will change the position of its hands frequently, and shift its weight uneasily from one foot to the other while being examined. In temper the child is apt to be fretful. Nothing particular is to be noticed about the face except a peculiar heavy expression about the eyes. Warner* thinks this due to lack of tone in the orbicularis palpebrarum muscles, giving an appearance of flabbiness about the lower eyelid; the skin hanging too loose, with an increase in the number of folds, and in place of falling neatly against the lower lid as a convex surface, falling more or less in a plane from the ciliary margin to the lower margin of the orbit, a condition best seen in profile. This heavy expression of the eyes is not, however, noticed in all cases of recurrent headache. The headaches, as a rule, come on in the morning, though the child may have seemed perfectly well on going to bed. The pain is generally localized in some particular part of the head, frontal region, either side, or at the vertex, being rarely in the occipital. The pain is usually severe enough to prevent work or play. We may meet with optical illusions of sparks or spots and bands of color. The child generally feels chilly and lies curled up in a chair near the fire. The picture is like that of migraine in adults, with this difference: the pain is more likely in recurrent headache to be across the forehead, at the vertex, or at the base; less often seen confined to either side of the head than in migraine. There is rarely nausea and vomiting. Dr. Eustace Smith, in his last book,† considers the headaches identical with migraine. Dr. Warner is inclined to think them but a mild manifestation of a choreic state. It has been shown, he says, by Dr. Hughlings Jackson and by Dr. Herman that in cases of chorea about seventy per cent. of children suffer from recurrent headaches. In my own cases I have seen little to support the theory that the etiology of chorea and recurrent headaches is the same. I have noticed at most a general bilateral uneasiness, if I may so call it, the child appearing fidgety, but able to keep quiet by exercise of the will. In a few cases I have noted an involuntary twitching of the tongue when protruded, also bilateral. In no cases was there any inequality of cardiac action, nor were there noticed endocardial murmurs. None of the children had symptoms of chorea, and none, so far as I have been able to ascertain, have had chorea since they came under my notice. At one time I treated a few mild cases of chorea as I would recurrent headaches, but was not satisfied with the progress made, and returned to other treatment; all of which, to my mind, shows the dissimilarity between such cases of headache as I describe and the recurrent headache noticed in chorea.

The question of heredity may be of importance. In several cases I have found that either the father or mother suffered, when young, from what they called "sick headache," some of them even now having the ordinary migrain of adults. I think, therefore, that in some cases recurrent headache in childhood may be the precursor of migrain or of congestive headache in later years.

During the last six years I have seen some twenty cases of recurrent headache. At first I spent some time over these trying to relieve them by the general methods employed in headache. Not meeting with success, I at last remembered what Niemeyer calls the "fanciful hypothesis" of Drs. Bois Raymond and Möllendorf, that the pain may be due to excitement of the terminal sensory filaments of the fifth pair by dilatation of the capilliary blood-vessels of the dura mater. I therefore tried ergot for its effect on the arterioles. The treatment has been on the whole satisfactory. My custom is, to satisfy myself that the headache is not due to gastric or intestinal disorder, to disease of the kidneys, heart, brain, or lungs; that it is not due to excessive use of tea or coffee, and that it cannot be accounted for by astigmatism or other abnormal vision. If none of the above causes for headache exist, I prescribe ten minims of the fluid extract of ergot, generally alone, sometimes with iron. I persevere in the use of ergot at least two weeks after the disappearance of the headaches. In one or two cases I have kept it up longer.—Dr. Russell Sturgis, in *Archives of Pediatrics.*

NASAL CATARRH AND ITS TREATMENT.—In the course of a paper read before the New York Clinical Society, and published in the N. Y. Med. Journal, Dr. Beverley Robinson discusses the treatment of nasal catarrh. We reproduce only his suggestions as to medicinal treatment, though surgical measures are also sometimes indicated. Speaking of local applications, Dr. Robinson says:

I believe powders are better than douches; they do less harm. I believe also they are better than sprays, because the medicament which they may carry remains for a longer time in contact with the parts affected. It is only necessary to recall the form of the nasal passages to be impressed at once with the impossibility of limiting the douche, the spray, or the powder, to the part from which the secretions flow in nasal catarrh; that is, to the diseased tissue. But of the three measures

* "Physical Expression."
† "Disease in Children," 1884.

mentioned, I think powders are rather better than sprays, and certainly better than douches. For a year or two past I have, so far as concerns the anterior and median portions of the nose, relied more on ointments to produce curative results. There is one objection to them, namely, that they can not be made to reach so much surface as the spray, douche, or powder does, but I believe an ointment is a better application to an inflamed mucous membrane than water, the reasons for such belief being physiological. I have not time to repeat them here; they are to be found in some of my writings. I introduce the ointments on applicators, or have the patients sniff them up. At present I am using a spray of carbolized oil. This, being a spray, has, in the first place, the advantages of a spray; it further possesses the advantage of an oleaginous agent, and in addition is a medicament, since it carries carbolic acid. Another method of employing medicinal agents locally is in the form of vapors. You may put the medicament (it must be volatile) into water and raise this to a sufficient temperature to make a vapor to be inhaled. It will come in contact with all parts of the mucous membrane, and might be supposed to be an excellent method, but practically it is a failure, for under it patients grow worse. Dry vapors properly used are, in my estimation, very valuable. They may be employed in various ways. I now use a little inhaler which bears my name. It costs only fifty cents, and is, I believe, more serviceable than any instrument for a similar purpose which can be bought even at a much higher price.

Sometimes these local medicinal measures will all fail to relieve materially, much less to cure entirely, and you may not be able to recognize any diathesis to account for the catarrh. In this position you may recur with some advantage at times to one of three remedies for internal administration. These are cubebs, sulphur, and ammoniacum, which have been recognized for more than a hundred years as of benefit in inflammation of mucous membranes. Sulphur may be used in spray, or it may be taken internally in the form of sulphur water. Such waters, abroad and in our own country, have been used beneficially in catarrhal affections. This treatment has its objections, but I will not stop to point them out.

Regarding cubebs, I think I was the first to use it in nasal catarrh in an extensive way. I think well of its use in selected cases; and believe it has a desirable modifying effect upon the diseased condition of the mucous membrane. It may be given with a probability of being useful in cases in which catarrhal dyscrasia is apparently present, and provided the digestive organs are undisturbed. Ammoniacum is also useful only in certain cases, for in some it causes the secretions to become too thick and tenacious and hard to remove from the nose or naso-pharynx, so that it has to be given up. So much can properly be said in regard to the intelligent medicinal treatment, local and general, of numerous cases of nasal catarrh—in persons in whom it may or may not be due to a diathetic condition, who are otherwise in good general health, and have, so far as can be recognized, no invincible or considerable degree of local obstruction which acts as the evident or sole cause of the catarrh.

TREATMENT OF ALOPECIA AREATA.—Patients with alopecia areata should be put in the best possible condition hygienically; for, although they generally seem to be in good health, careful investigation will often show some departure from the normal condition which has more or less bearing upon the disease. Thought must be especially directed toward nerve nourishment, and all my cases of late years which have done the best have been treated on this plan. The fats and phosphates should be increased in the dietary, and I always encourage largely the use of fresh butter, cream, fat of meats, etc. Milk is also of great service, if well borne; but, as I have fully explained elsewhere, this does not agree well with adults when taken in connection with other food. I direct it, therefore, to be taken absolutely alone, in the intervals between meals, say one hour before each meal, and at bedtime—provided this is three or four hours after the evening meal. The idea is, that as milk contains all the elements of nutrition, and is the substance from which the hair was originally grown, it will best aid in its later reproduction and nutrition.

The phosphates are best found in whole wheat, and I encourage the use of whole-wheat bread, also crushed wheat with cream, and any other preparation in which the phosphates abound; fish I believe to be beneficial in these cases, and I urge its use once daily.

The medicinal treatment is based on the same principle, and my best results have been obtained under the free and continued administration of strychnia with phosphoric acid. Arsenic is of moderate value, and should be given in alternation with the former. Cod-liver oil is also valuable, especially to patients who cannot or will not take the fats in their dietary; and some of the emulsions, with a large proportion of phosphates, serve the double purpose above indicated.

Locally, the whole treatment is summed up in the single idea of stimulation of the diseased patches. While parasiticides are not actually called for by any local parasite present, experience has shown that many of the remedies used for this purpose are also of benefit in alopecia areata. Bichloride of mercury, in a strength to moderately excite the skin, is frequently the best application; but my preference is for veratria in ointment, of a strength of five to ten or more grains to the ounce. Croton oil, strong carbolic applications, acetum cantharidis, capsicum, and other stimulating applications may also be used with advantage.

In conclusion, however, I am positive that the best results in the management of this often troublesome affection will be reached when it is looked upon, not as a local affair, but as a manifestation of a constitutional derangement having its basis in lowered vitality of the nervous system.—L. Duncan Bulkley in *Med. Record*.

A NEW TREATMENT OF TRANSVERSE FRACTURE OF THE PATELLA.—In the report of the Clinical Society of London, published in the London Lancet, June 1st, 1889, it is stated that Mr. Mayo Robson related a case of Transverse Fracture of the Patella, which he treated by a new method to secure bony union without opening the joint. The bone was broken just

below the middle, as the indirect effect of a fall. He pointed out how unsatisfactory were the results obtained by the methods usually resorted to, and added that although he had never met with an accident in wiring the fragments, yet it was impossible to shut one's eyes to the fact that the patient was exposed to a great risk. He had therefore applied himself to the discovery of a method whereby the advantages of bony union might be secured without incurring the risk of opening the joint. In this case the skin over and around the joint was cleaned and rendered aseptic, and the joint was then aspirated. He then obtained two long steel pins with glass heads such as ladies use for fastening the bonnet, and having thoroughly purified them, drew the skin well up over the upper fragment and introduced the needle transversely through the skin and muscle just above the level of the upper fragment, repeating the operation with the other needle at the upper end of the ligamentum patellæ. Gentle traction on the pins then easily brought the fragments into apposition. The ends of the pins were then clipped off, leaving about half an inch on either side, and the whole covered with antiseptic gauze. This dressing was left undisturbed for three weeks, and when it was removed there was no redness or other sign of irritation having been caused. The temperature was never above normal, and the patient felt very comfortable all the time. The fragments seemed well united, and the needles were therefore withdrawn, a plaster-of-Paris splint applied, and the patient allowed to go home. He pointed out that the only precaution necessary was to draw up the skin over the upper fragment, in order to avoid undue traction upon it when the fragments were approximated. The integument should be rendered aseptic as well as the pins, and the latter should be stout enough not to bend when drawn upon. If there was much effusion, it would be desirable to aspirate. As union occurred without the throwing out of any amount of provisional callus, it was always well to insist upon the use of a Thomas's splint for some time after. The advantages of the operation were its simplicity, the absence of risk, and the obtaining bone union. He said that this was the second case of the kind upon which he had operated, and more recently he had performed the same operation in a case of fracture of the olecranon, but it was as yet too early to say anything as to the result.

THE TREATMENT OF DIPHTHERIA IN CHILDREN BY STEAM MEDICATED WITH SULPHUROUS ACID.—In this paper the author reports in detail six cases of diphtheria and refers to others. All but four of these cases were treated, and successfully, by continuous inhalation of steam combined with antiseptic fumes obtained by burning sulphur in the apartment. The patient is surrounded by an atmosphere of steam, retained by fixing to the bed an open umbrella and throwing over this a large sheet. A pipe conveys the steam from a boiling kettle into this tent. A teaspoonful of sulphur is burned in the room every hour.

Among other advantages in favor of this plan, the author gives the following:

Constitutional and local rest are obtained during the whole course of the disease.

The method is applicable in all forms of the disease, even in cases where the air passages are much involved. The method is simple and but little apparatus is required.

Paralysis never seems to occur as a sequel, and convalescence is rapid.

No bad effects have followed where children have breathed steam four days and nights successively.

In the discussion following the reading of the paper, these points, among others, were brought out.

Steaming with antiseptics was not likely to be of much more value than simple steam. It must be remembered that epidemics vary so much that whatever mode of treatment is adopted it is sometimes successful.

It was regretted that the author had not made a more careful analysis as to the effect of steam alone and steam with sulphur fumes.—*Archives of Pediatrics*, June '89.

SULPHONAL AS A HYPNOTIC.—From a rather extensive use of sulphonal in private and hospital practice, covering cases of insanity (mania and melancholia), delirium tremens, morphine habit, sleeplessness from mitral insufficiency, from syphilis, from malarial poisoning, from anæmia and in Bright's disease, I am led to the following conclusions:

GOOD EFFECTS.

1. It is a safe hypnotic, of remarkable intrinsic value, especially in cases of insanity. In all cases, except one, refreshing slumber of from two to eight hours' duration was produced by fifteen grains, dry or in hot soup, repeated in one hour if necessary.

2. It is effective in those cases where bromides, chloral, paraldehyde and hypnone have been tried in vain.

3. It possesses pure hypnotic properties without anodyne effects; on sleeplessness caused by pain it possesses no controlling influence.

4. It has a secondary effect, *i. e.*, its calmative power seems to extend over one day, and exert a modified hypnotic influence the second night after its exhibition.

5. Its advantages over other hypnotic remedies are that it does not constipate as do the preparations of opium; the sleep produced by it seems to more closely resemble natural sleep than does that of any other drug; having neither taste or odor, it is easily given in cases where patients object to taking medicines.

6. In morphine habit it is the most valuable remedy yet discovered to control insomnia; with capsules of monobromide of camphor (four grains each) a few hours before bedtime, and one-hundreth grain doses of hydrobromate of hyoscine hypodermically for delirium, little difficulty is experienced in the management of these usually troublesome cases.

BAD EFFECTS.

1. In Bright's disease (tried in one case only with its insomnia from tense arteries and anæmic brain, it seems to aggravate the trouble.

2. In alcoholism it appears to have but little effect, and has been abandoned after repeated trials.

3. It may cause a very troublesome general pruritis, with dryness of the fauces and a burning sensation; in one case it had to be discontinued because of this effect.

The Medical Age.

Vol. VII. DETROIT, JULY 25, 1889. No. 14.

Original Articles.

SOME CONSIDERATIONS ON THE MENTAL CONDITION IN CHOREA.

BY J. SEGLAS, MEDECIN SUPPLEANT OF THE SALPETRIERE.

(Translated from the French by F. W. Mann, M. D., Detroit).

In looking over what has been previously written concerning the mental condition of choreic patients, we notice that detached observations and monographs generally deal with cases which, while apparently similar, are actually dissimilar; the intellectual disorders in choreics being seldom observed to present any special characteristics that admit of their nature and origin being recognized apart from the motor disorders and other typical symptoms.

This should occasion no surprise, when we recall the numerous forms under which the malady commonly known as chorea manifests itself, or the radically different affections to which this accommodating term is applied in common usage. The nosographical distinctions due to the teachings of Professor CHARCOT, and the researches of the School of the Salpêtrière, have recently been enumerated in the excellent thesis by M. LANNOIS. We shall not, therefore, repeat these here. In our opinion, although less marked, the same distinctions prevail from a psychical standpoint, and we are able to distinguish different mental conditions corresponding to the rhythmical choreas, the arythmical choreas, and the pseudo-choreas.

Passing by the authors, who have in the past indicated, though somewhat vaguely, the psychical troubles in chorea, such as Tulpius, Sydenham, Cullen, Franch, Boutelle, Blacke, Georget, etc., we come to the principle work on the mental condition in chorea by MARCE. This monograph, noteworthy in many ways while it exhibits some confusion owing to the progress made in neuropathology, is nevertheless almost the sole work upon the subject, nothing having subsequently been done but cite this authority in making isolated reports of cases. We think his views may now, however, be objected to slight modifications, in consequence of the imperfections before alluded to, which consist in the main in uniting under a common classification, conditions really dissimilar, and recognized as such in all recent works on degeneration and hysteria.

MARCE and the writers who followed him, deemed the mental condition in chorea characterized by the following points: (1) Disorders of moral sensibility. (2) Impairment of the memory and other intellectual faculties, particularly the attention. (3) Hallucinations. (4) Maniacal delirium.

If the existence of these various psychical disorders be admitted, the problem before us is not simply that of describing them *en bloc* but of classifying them in accordance with the different forms of chorea, and determining the common features of their etiology and pathology.

MENTAL CONDITION IN ARYTHMICAL CHOREAS.

In this group, the most important example is doubtless that described by SYDENHAM, and which we now have in mind as the true type of a rythmical chorea. In SYDENHAM'S chorea, which generally manifests itself in infancy and adolescence, we often notice modifications of the patient's mental state of the kind included in MARCE'S first two groups, manifesting themselves by emotivity, inconsistency, irascibility; proneness to falsehood, violence of disposition, and also by diminution of the attention and memory. These symptoms are not, however, especially typical of chorea, and MARCE, himself, admits that troubles of this kind accompany all neuroses. In patients with hereditary taint, or in those who are slightly deaf, we meet these conditions without any accompanying choreic manifestation, or any symptom enabling us to classify the cases other than as those of simple mental instability. We even find a form of motor instability frequently associated with the mental instability, beginning perhaps in simple uneasiness, and ending in incessant movements imperfectly resembling chorea, but not convulsive in character. These individuals may be specially predisposed to chorea, which would necessarily aggravate troubles of this kind. But, shall we on this account consider chorea responsible for these intellectual disorders? To do so would surely be as unreasonable as on an idiot becoming choreic attributing his idiocy to his chorea.

SYDENHAM'S chorea must, therefore, be regarded as a neurosis, and no surprise need be experienced if we find it associated with those modifications of character and intelligence typical of a neuropathic temperament; an existing chorea may accentuate these disorders, but does not create them, nor are they dependent upon its existence. This seems to be the opinion of such authors as KRAFT-EBING, who regards chorea as an accessory and occasional cause of mental disorder.

The connection between chorea and rheumatism has given rise to considerable discussion. In England a causal relation is discerned, while in Germany this is regarded as simply a coincidence. In France opinions are divided, and BOUTELLE, G. SEE, and HENRY ROGERS, admit an intimate relation existing between rheumatism, cardiopathies, and chorea. The most recent works of CHARCOT, FERE, JOUFFROY, LANNOIS, and DEJERINE, recognize but one cause for Sydenham's chorea —nervous heredity, creating a predisposition to the disease. This predisposition may be aroused in various ways: by moral emotions, by pregnancy, by infectious disease, and often by articular rheumatism. In all these circumstances the symptomatology always demonstrates that it is the same chorea that is manifested. The nervous predisposition has been rendered active in different ways, but the result is the same. Again, the neuropathic constitution of choreics is often further demonstrated by the presence of various nervous disorders, or by those stigmata specially attributable to hysteria. Waiving the discussion of the point as to whether Sydenham's chorea should be considered a form of hysteria, we frequently recall seeing choreic patients, with the constricted larynx, the sensation of a lump in the throat, convulsive seizures, and phenomena having the greatest analogy to those observed in hysteria. TRIBOULET directed attention to the painful apophyseal points, since noticed by other writers. W. P. MARE determined the existence of painful points in the ovarian region in 19 out of 27 girls. M. FERE records two such cases. We have for our own part frequently verified these facts in the Salpêtrière and in about three-fourths of our cases have found either oöphoritis, vertigo, rachialgia, perturbations of sensibility, and amaurosis, in addition to hysterical symptoms. According to our own experience, it is in these cases that the patient, when affected by chorea, presents psychical troubles, and to the symptoms already noted we must add hallucinations. Shall we assert these troubles to be dependent upon the chorea? Should we not rather say that these choreics are first and foremost hysterical, seeing the striking resemblance between them and the victims of hysteria in being emotional, sad, or gay without motive, violent or apathetic, and in all cases mobile and unstable? Let us also observe that hallucinations in both cases present the same characteristics, affecting particularly the sense of sight, in being hypnagogic persisting through sleep, in being gloomy in character and generally zoöpsic. MARCE while admitting that hysterical choreics have not the exclusive privilege of hallucination, regards hysteria as a predisposing cause; for ourselves it is a principal cause. Numerous other observers have also alluded to the hysterical manifestations in those afflicted with chorea.

Our own observations regarding the predominance of hallucinations over certain senses tend to confirm what MARCE has said. We have not observed hallucinations of hearing, taste, or odor (which MARCE admits to be very rare), but those of sight, and most frequently those of general sensibility. We have not, however, observed that these disorders, more than the intellectual ones, appear in sympathy with the intensity or progress of the chorea, for when the chorea has disappeared we are still left face to face with a neuropathic patient, presenting the inherent characteristics of that particular temperament.

We shall not dwell upon the other forms of arythmical chorea. Apropos of the *chorea of pregnancy*, we shall readily recall the fact, that there are modifications in the mental condition of pregnant women resembling those attributed to choreics, and these conditions, if we exclude hysteria, most frequently manifest themselves, as M. DEGERINE has shown, in cases where hereditary antecedence is traceable. Chorea intervening may exasperate somewhat pre-existent mental disorders, but cannot be considered the cause.

In the *chorea of old people*, some observers consider certain intellectual and moral blemishes result from the affection itself. CHARCOT, however, considers the majority of old people attacked by chorea, to be in a previous condition of more or less pronounced dementia for which senility is responsible rather than chorea. The intellectual disorders accompanying hemichorea, resemble those of hemiplegic dementia, both being a result of an identical cause.

Among the arythmical choreas, there yet remains one form, associated with intellectual disorders of a melancholic type with tendency to suicide, and a progressive enfeeblement of the intellect, etc., imparting the appearance of genuine idiocy to the patient. We allude to *hereditary chorea*. But by simply investigating the family history of the patient, we perceive we are now in the domain of nervous heredity, leading to family degeneration and extinction.

MENTAL CONDITION IN CASES OF RHYTHMICAL CHOREA.

Along with these cases of arythmical chorea, are others in which the movements assume a rhythmic character. The recent researches of M. CHARCOT demonstrate rhythmical chorea to be essentially nothing but hysteria, of which it should be considered a symptom. Therefore, we shall not be surprised in discovering among these patients, disorders of disposition and intellect precisely similar to those met with among hysterical patients. It is these who most frequently exhibit the psychic symptoms described by MARCE, nevertheless, chorea has nothing to do with them; hysteria is the cause. The choreic movements and mental disorders are only symptoms, the relationship between them being not that of cause and effect, but of co-existence. Instead of appearing sporadically, rhythmical chorea occasionally assumes an epidemic form, and this has sometimes been regarded as the true *Choreic Mania*. History abounds with examples of this kind, and yet chorea along with the psychic disorders accompanying it, are simply hysterical indications resembling epidemic convulsions.

MENTAL CONDITION IN CASES OF PSEUDO-CHOREA.

Among the many maladies formerly described under the name of chorea, are others having only a distant relationship to it. First take SALAAM'S or spasmodic tic, which we find frequently associated with mental disorders. It attacks suddenly backward children, idiots and imbeciles. It may of itself, if prolonged, produce serious mental disorders of a peculiar nature. It is now, however, admitted that SALAAM'S tic is a symptom of epilepsy, and as such may greatly impair the intellectual faculties or arrest their development, for it shows itself oftenest in childhood.

There is also a malady for a long time confounded with chorea, and described for the most part as chronic chorea; but which should be distinguished from it, It is known as convulsive tic. In a former paper M. GILLES DE LA TOURETTE had noticed the intellect of these patients to be sound. Later, M. GUINON observed among them various psychic disorders. Indeed, should these patients, as a rule, fail to exhibit the changes in the mental faculties common to diseases of the mind, they are still deeply affected from a psychic standpoint; they rest under the stigma of hereditary taint. Some have never attained a high mental level, others intelligent enough, present special forms of emotional delirium, with seizures and impulses generally regarded as denoting degeneration. We may add, that along with these mental disorders, physical, moral, or intellectual taints are frequently found, which under the seal of heredity, are traceable in their antecedents. The monograph of M. GUINON contains some telling examples. We have recently had three cases of convulsive tic under our own observation; one patient being an imbecile, another an echolalic, exhibiting the mania of distrust, and various impulses; with the third, also an echolalic, we found proof of arithmomania. In this class too might be included many cases of choreic mania; among others the case reported by TOSELLI, who regarded this as a choreic variety of moral mania. We are here, however, dealing with genuine hereditary degeneracy of which mental depravity or motor derangement are only symptoms, and having no other connection with chorea than is afforded by the particular region involved which may favor their development. At the same time there will be paroxysms of delirium, common to all these degenerate conditions encountered among those afflicted with convulsive tic, from which chorea must be excluded as a primary cause.

There is another malady, which may be compared with convulsive tic, paramyoclonus multiplex. The study of the psychic side of this disorder has hitherto been neglected, but we know the most important etiological factor to be neuropathic or psychopathic heredity. We have noticed in these cases fickleness of mind, emotional tendencies, impairment of the memory. One patient we had under observation was excessively emotional, and exhibited a mental condition bordering on the mania of distrust with hypochrondriacal tendencies. He was of a previously low intellectual level.

Upon the whole, when persons afflicted with chorea of any kind have mental disorders, it seems to us we are not justified in attributing them directly to chorea. It is different in chorea, and other mental diseases, epilepsy for instance, the mental disorders having nothing characteristic, being often only symptoms of a neuropathic constitution for the most part hereditary. This has led certain writers such as WUNDERLICH, ARNDT, etc., having simply chorea in mind, to assert that there was scarcely any chorea without mental disturbance. This may be true in the main, but is a result, not of chorea, but of the nervous temperament peculiar to that idiosyncrasy alluded to by MARCE when he failed to discover mental disorders dependent on the sex, age, intensity or extent of motor derangement, or acuteness or duration of the chorea. From MARCE'S point of view his opinion is correct. Nevertheless, we may affirm, that psychic changes are accentuated by grave forms of chorea which, no longer marked by intensity or duration of movement, resume their proper character in consequence of the predisposition of the patient increasing in gravity, thus clearly showing where the

primary lesion lies. Less accentuated and even occasionally absent in Sydenham's chorea, these psychic perturbations consist in simple disorders of character (intellectual modifications and sensory disturbances, showing themselves preferably where there are hysterical symptoms), but will appear more marked and exhibit greater permanence in hereditary chorea, and in cases of rhythmical or hysterochorea. Finally they are almost invariably found in the class known as pseudo-choreas, and particularly in the disease known as convulsive tic, where they manifest themselves in special forms of mental debility, fixed notions, delirious disturbances, and irresistible impulses.

We have hitherto only considered changes in the character and intelligence, and hallucinations, and have omitted reference to the so-called choreic mania. On this point we must suspend judgment, not having had any opportunity of personally observing cases of this kind, which, by the way, would seem to be rather uncommon. On the other hand, we hold that we cannot be too reserved on this subject, for the perusal of the observations published up to the present time is insufficient for the formation of a reliable opinion. The cases reported by various writers are very dissimilar as regards symptoms, the gravity of the disorder, and necroscopic results. The most frequent form alluded to, would be maniacal (MARCE, MEYER, BALL), but we also meet with anxious melancholia, and a delirium of being followed, often of demoniacal kind. The prognosis for some is very grave (MARCE) for others favorable (BALL). The post-mortem will afford widely divergent results,—cerebro-meningeal congestion, exudative meningitis, lesions of the corpora striata,—or even be absolutely negative. Besides we often meet with subjects of rheumatic affections, co-existing with chorea, who, having exhibited the commonest forms of maniacal and violent delirum, at the autopsy manifest certain signs of meningitis, which cannot but inspire us with extreme reserve in regard to certain cases of choreic mania which WIGGLESWORTH compares to CLOUSTON'S rheumatic mania. On the other hand, numbers of cases are not genuine chorea, but pseudo-chorea. We have under observation an example of this kind. Other cases of choreic mania seem to be only aggravated cases of chorea with incoördinated movements and incessant agitation. Finally, in the presence of such monographs as ARNDT'S, where exaggeration and confusion are pushed to the extreme, we cannot but continue distrustful, for he not only affirms that there cannot be chorea without mental disorder, but he draws into the circle of choreic mania the most diverse psychoses in order that we may encounter a few or some of the following symptoms, which he considers of choreiform nature, such as indistinct articulation and difficulty of speech, absurd words or phrases, inarticulate cries, lack of precision in movements, automatic repetition of the same movements, hesitation in the performance of familiar duties, etc.

In the presence of facts so divergent, sometimes contradictory, and always confused, the existence of a properly so-called choreic mania remains in our opinion problematical. In any case if it exists, it is a chapter in mental pathology still to be described.

THE POWER OF MAN OVER THE MICROBES.

BY PROF. CHARLES BOUCHARD.

GENTLEMEN:—In my idea, the microbes are, of all living beings, those over which man seems to have the most power. What other beings are there, in fact, of which we may to the same extent hinder the multiplication, modify the nutrition, alter the functions, change the form?

We may then hope in the future, owing to our control, to render less frequent and less dangerous the invasions of infectious diseases. This statement is in a measure borne out by the fact that many infectious diseases have become less formidable than formerly.

But, in the first place, it is an error to affirm that microbes are our enemies in general. On the contrary, the great bulk of the species is for us. Without the microbes, life would become extinct on the face of the earth. They render vegetable and animal life possible; they are indispensable intermediaries in the circulation of matter. It has been said that plants organize mineral matter, and that animals destroy organized matter to restore it to the mineral world. If this conception is true in the aggregate, both terms of the formula are incomplete and inexact. Animals, without doubt, transform organized matter; they reduce a part to the mineral state, to the state of water and carbonic acid. But it is only a part whose total disorganization is effected; as for the rest, the work of destruction is unfinished. In order that everything may again become mineral, the co-operation of the microbes is indispensable. During life they take possession of the hairs, of the epithelial cells, of mucous, of excretions other than water and carbonic acid. After death, they alone can restore the body in its entirety to the mineral world, by disorganizing and mineralizing its tissues, which they transform into water, carbonic acid, hydrogen, carburetted hydrogen, sulphuretted hydrogen, ammonia, etc. If the destruction of matter is begun by the animal, it is finished by the microbe. As for the substance of plants which have not served for the food of animals or which man has not destroyed by the aid of

fire, this can only return to the mineral world through the microbes, the latter either totally effecting the work of destruction, or preparing and facilitating spontaneous direct oxidation.

On the other hand, if plants give organization to mineral matter, the microbes prepare this organization. We know by the works of MUNTZ, and SCHLOESING that they play a rôle in the nitrification of ammonia; more than this, they fabricate, according to BERTHELOT, an insoluble azotized matter which constitutes with the nitrates the organized alimentation of plants. They play a double rôle in nature; they prepare the life, they complete the death; without them, the utilizable mineral matter would be soon exhausted.

We see that without any design of ours, the microbes work for us. But besides, we have been able to assign to them special rôles and make them subservient to our arts. ALVAREZ showed a few months ago that the fabrication of indigo in the substance of the indigoferous plants is the result of a fermentation of which the agent is a microbe; now man may regulate this fermentation and make it as productive as possible by preserving the fermentable mass from all contamination with other microbes which might hinder the action of the specific ferment. Behold then the microbes as our collaborators! Moreover, are we not indebted to them for our bread—is it not to them that the people of the North drink beer, and that we drink wine?

It is true that if we have in some instances subjugated them, in others they are mutinous and endeavor to restore to the mineral world the matter of our bodies, even during life. Thus it is that certain microbes are pathogenic; among these we have already been able to domesticate certain species, and have transformed them into vaccines, or compelled them to fabricate matters which preserve us against their assaults, and which, if the disease has already declared itself, will perhaps aid us some day to triumph over it.

Some will object that the infectious diseases have not become much attenuated in the course of the ages, despite our pretended power over the microbes, and that our patients treated antiseptically during the cholera epidemic of 1884 did not get along any better than those who in 1873 were treated by other and strictly physiological means. This is true, but it is not right to judge of the power of man over diseases by one single disease whose pathology is still very obscure. When you read the history of epidemics, if you find pages that are frightful, you must remember that viewed in its entirety this history is encouraging, and testifies eloquently in favor of man's increasing power over pathogenic agents.

Without going back beyond the modern era, do we not know that the plague of the fourteenth century which spread such consternation, and was called the black death, swept away in a few years more than 80,000,000 of men in Europe, and has not humanity triumphed over this pest?

Leprosy, a scourge that numbered so many victims in the past, has almost disappeared since the day man undertook sufficiently efficacious measures to protect himself from the microbe that engenders it. By common consent, the lepers were banished from society, were obliged to announce their approach by the sound of a bell in order that men might shun them, and marriage was forbidden them.

Probably at the present day such harsh measures for stamping out disease would hardly be thought of. In the light of modern pathogency, tuberculosis is almost in the same category as leprosy, but it is not likely, however, that society will ever attempt the suppression of the disease by ostracising the victim; it may, in fact, be that the same mildness which allows the microbe of tuberculosis to vegetate in full freedom, will some time permit that of leprosy to make a conquest of western countries, which formerly, by most energetic and perseverig measures of repression, drove the foul disease to its old haunts on the Mediterranean shores, or in the North of Europe. One thing history has taught us: whenever man has determined to rid society of this plague, he has done it.

As for syphilis, we have not, indeed, suppressed it, but we have greatly moderated its severity and diminished its frequency. We have almost utterly caused the disappearance of chancroid, which for twenty-five years has been practically unknown among us.

From a general point of view, we may say that anarchy and barbarism are favorable to the multiplication of pathogenic microbes, while the progess of civilization is inimical. Intermittent fever, more grave than the plague, is endemic in three-fourths of the habitable portions of the globe; has had its victims every day of every year of all the ages of the world's history; and at the present completely depopulates certain countries, or renders them unfit for human habitation.

The microbe of malaria antedated humanity upon this globe by thousands of centuries, and the primitive man must have felt its assaults, for the germs of the disease were accumulated in the vegetable matter of the soil. But in order that the germ might manifest its effects, it was necessary that the being susceptible to its influence should appear.

He who turned the first furrow, was the first victim of the marsh poison. He thus made himself a ransom for those who should come after him, for it is man's work which has rendered the earth habitable by cultivating the

land. If in the cultivated parts of the world there is less danger to man from microbic diseases, it is because agriculture has caused the progressive disappearance of the miasms of the virgin soil. Compare, from this point of view, the deltas of the great rivers in countries where civilization no longer exists, with those cultivated deltas of the Escault, the Mensa, and the Rhine, in which the activity of man maintain both richness of soil and public health. If our delta of the Rhone is unhealthy, it is much less so than formerly, thanks to numerous works of sanitation and drainage. See what has happened in Algiers, where so many lives were swept away by intermittent fever at the beginning of the conquest. Nine-tenths of the emigrant population died during the first two years, but after the soldiers had left, the colonists came, and their labors produced a fecundity of soil and general salubrity which leave little to be desired to-day. In digging canals, in constructing dikes, in ridding the mountains of their timber, in regulating the water courses, in digging up marshes, civilization has removed the conditions favorable to the life of the infectious agent.

On the contrary, when civilization undergoes an eclipse, temporary or permanent, we see both the richness of the soil and the health of the inhabitants progressively and synchronously diminish: the dikes give way, canals become obstructed, agriculture droops, and in the soil, the pathogenic microbes reappear. This is what has taken place in Spain, since the expulsion of the Moors and disappearance of the brilliant civilization they had founded. In Greece, the enthusiastic students of archæology show us among the remains of rich and populous cities, the vestiges of works which ensured to those provinces health and abundance. The barbarian invasion swept everything away, and to-day the poverty of the soil and malaria keep the population at a low figure.

Thus man is master of the microbe, for it is in his power to change the environment in which the microbe lives.

I have spoken of man's power over the microbes of malaria; this power is no less manifest in many diseases communicable from man to man. Without attacking directly the life of the microbes, we may diminish their number, change their forms, alter their functions, exalt or attenuate their virulence, and afterwards restore to them, if we wish, their primitive virulence. We may also, by reason of the transmission by heredity of the functions which we have modified in them, cause the descendants of these microbes to keep the same degree of virulence, strong or weak, which we have imparted to the progenitors. These statements I must prove to you.

I said first that we can influence the number o the microbes, and on this point I must lay stress. You will understand the importance of this if I show you that it is on the number of the microbes that the chances of infection depend, and the gravity of the infectious disease. Take for example, vaccine: an accidental scratch with the point of a pin charged with vaccine matter may give rise to a linear, uninterrupted series of vaccine pustules; but all vaccinators affirm that to assure success, it is necessary to introduce under the skin a notable quantity of vaccine.

This question of the importance of the number of the microbes has been studied experimentally by M. CHAUVEAU. When you inoculate a culture of anthracoid bacilli in animals relatively refractory to charbon, as Algerian sheep, you have to introduce under the skin large quantities of the culture in order to communicate the disease; while our French sheep contract charbon from a simple prick under the epidermis, behind the ear.

The question was again, taken up in 1886 by WATSON-CHEYNE. This observer arrived at the following results: A single anthrax bacillus kills a guinea pig; one bacillus of the septicæmia of mice kills a mouse; but in order that one single infectious agent may produce death, the microbes must be exceptionally virulent, or the animal exceptionally susceptible to the disease.

A small number of the bacilli of the septicæmia of mice has no appreciable effect on guinea pigs; a moderate quantity (several thousands) produce in a guinea pig only a local abscess; a large quantity rapidly cause death before even local lesion has had time to manifest itself. You see, therefore, that an importance is attached to the number of the microbes from the point of view of the transmission and gravity of infectious diseases, since, by increasing this number, we can overcome the resistance which an organism effectually opposes to a less number of infectious agents.

WATSON-CHEYNE attained similar results by inoculating in the guinea pig the *staphylococcus aureus*, the *micrococcus tetragenus*, and that microbe of human saliva which produces in the hare violent septicæmia. These three microbes, according to the quantity introduced under the skin, either produce no lesion at all, or cause simply a local lesion, or produce death without local lesion. Only a very few microbes of chicken cholera kill a hare; less than ten thousand have no effect on a guinea pig; more than ten thousand produce a local lesion in this animal, and three hundred thousand kill him. Hence, the resistance of an organism to the invasion of infectious agents depends, among other things, on the number of infections agents introduced.

WATSON-CHEYNE has also made an experiment which goes to show that microbes which

are not considered as virulent, like the *proteus vulgaris*, may determine more or less grave, and even mortal accidents when introduced in excessive number in an animal organism. Thus, nine millions of *proteus vulgaris* will not harm a hare or guinea pig; if more than one hundred and twelve millions, an abscess makes its appearance at the point of injection; and if more than two hundred and twenty-five millions, death supervenes between twenty-four and thirty-six hours, before any local lesion has time to manifest itself.

Do not be surprised to hear me speak thus glibly of millions; these figures are nothing when you have to do with beings a thousandth of a millimetre in size, for in a milligram of infectious matter there may be ten millions of microbes, and even thirty millions in the same weight of this matter in a dried state.

After the data which I have just given you, you can form something of an idea of the resistance of an organism to an infectious agent. We may say that the susceptibility to an infectious disease is inversely proportioned to the number of microbes necessary to produce a given train of symptoms.

Another conclusion from the experiments of WATSON-CHEYNE is that the disease is directly proportional to the number of microbes introduced, and that the duration of the incubation is the shorter, the greater the number.

We have seen that the resistance of animals to disease is proportional to the quantity of microbes; the fact is true also in its application to the culture of the microbe *in vitro*. It seems absurd to speak of the resistance of a culture broth to microbes, and, at the same time, if in introducing a single spore into an appropriate broth you may attain at the end of a certain time an abundant vegetation, it will be found that in the case of other species of microbes a single spore sown in the same bath will give no culture whatever. From this you will rightly conclude that a medium favorable to one microbic species is unfavorable to another; but, at the same time, if, instead of one spore you sow a large number, you will often see the culture succeed; the number will have triumphed over the resistance of the inert medium.

Add to a solution of cane-sugar or milk-sugar a minute quantity of yeast; no change is effected; but if you add a little glucose, the fermentation begins and goes on. The explanation of this is that the figured agents of fermentations, in undergoing development at the expense of the fermentable substances, produce soluble chemical ferments which in their turn exercise their action on the culture medium. The yeast which causes the glucose to ferment, produces, in developing, a soluble ferment, which, in its turn, attacks the cane-sugar or milk-sugar, and transforms it into glucose. That which ferments is the glucose; first that which you have added, then that which results from the transformation affected by the soluble ferment secreted without cessation by the figured ferment. The chemical fermentation commences to render possible the vital fermentation; new chemical actions do not take place with imponderable quantities. The proof of this is that, if in the solution of sugar cane you introduce a great quantity of yeast, you will not have to add any glucose in order that the fermentation may commence and continue. In the mass of yeast employed, there is a quantity of soluble ferment sufficient to convert a little of the saccharose and to produce the first quantities of glucose necessary for the establishment of the fermentation.

This remarkable example proves that the microbes are capable of adapting environing conditions to their needs. It also proves that the number of the microbes is an important factor in the success of their development.

Correspondence.

PARIS LETTER.

PARIS, July 1, 1889.

At the last meeting of the Academy of Medécine, M. DUMONTPALLIER gave a description of his new treatment of endometritis, by means of crayons of chloride of zinc, placed in the uterine cavity. It is now some time since the idea of applying caustics directly to the uterine mucous membrane was conceived, but the means employed were either lacking in efficacy or else too dangerous, whereas the procedure of M. DUMONTPALLIER is certain and entirely free from risk. Out of 100 cases treated he obtained 96 cures without complications, and four cures accompanied by complications which however, were owing to the imprudence of the patients themselves. The important practical point in the method is, that only crayons of great flexibility are used, which adapt themselves readily to the different directions of the uterine cavity. The eschar caused by the caustic is expelled, as a rule, about five days after the application is made. Vaginal antisepsis is carried out in all its details, and the cure completed two days after the fall of the eschar; and the operation was never followed by stricture of the uterine canal. No disturbances of the menstrual function were noted in any of the cases treated.

SUBSTITUTE FOR MILK DIET.

In the presence of the almost insurmountable difficulties which are often met with, in trying to induce patients to accept the milk diet, the celebrated Paris physician, GERMAIN

SEE, lately asked himself the question: What is the substance which gives to milk its diuretic properties? After numerous researches he came to the conclusion that it was to the sugar alone, that the milk owed its virtue in this regard. 100 grammes of glucose dissolved in two litres of water and given during the 24 hours gave rise to an abundant polyuria, which diminished after a certain time. The sugar taken in this manner does not pass into the urine, whereas milk when given in large doses of four litres daily, gives rise to glycosuria which tends to weaken the patient. The sugar of milk acts admirably in the different dropsies of cardiac origin, but it fails in those produced by renal troubles.

Thanks to this substance, patients with heart affections are not compelled to submit to an absolute milk diet, but may enjoy the advantages of a varied bill of fare.

ELECTRICAL TREATMENT OF UTERINE FIBROMATA.

DR. APOSTOLI, the well known specialist for women's diseases in Paris, has lately given to the world the following method of treatment for uterine fibromata, which he has applied in 26 cases with the most satisfactory results.

The method which he denominates "positive chemical galvano-cautery," may be described in brief as follows:

Introduction into the uterus of a platinum electrode, having the form of an ordinary uterine sound.

Completion of the electric circuit by means of a clay electrode applied to the abdomen, which diminishes the evolution of heat at the surface of the skin, so that the operation may be performed without fear of producing cauterization at this point.

The passage of a current of from 60 to 70 milliamperes during a period of 10 or 15 minutes. All interruptions of the current should be avoided with the greatest care, and it should be made as steady and constant as possible.

This current, which is the strongest ever used under similar circumstances, naturally produces an eschar in the lining membrane of the uterus, but the application may be renewed nevertheless with impunity twice a week. The good effects of the operation are seen very soon in a reduction, both of the size of the uterus and the amount of hæmorrhage.

The operation in itself is easy to perform, and does not produce any reactive inflammation.

SUBCUTANEOUS INJECTION OF TESTICULAR FLUID.

At a recent meeting of the Biological Society, held at Paris, Prof. BROWN-SEQUARD read a paper describing some curious experiments he made upon himself, which, to say the least, were quite startling in their nature.

He declared, that being guided by experiments made upon the lower animals, he was led to inject the fluid obtained by bruising and washing the fresh testicle, into his own cellular tissue, and with most remarkable results.

At the next meeting of the Society, he made a still more remarkable communication, on the same subject. He stated that he had been consulted by two patients of advanced age for general feebleness of constitution, and that being convinced of the wonderful regenerative power of the testicular fluid, gave them the following advice which he claims produced most satisfactory results. He directed them to perform the act of masturbation, but always stopping short of ejaculation, so that the spermatic fluid, which would naturally be stimulated to increased formation by the act, might be reabsorbed and have its beneficent effect upon the general system.

Following this same line of reasoning to its just conclusion, Prof. BROWN SEQUARD concludes that a fluid obtained in like manner from the ovaries, when injected into the female, might have the same stimulant effect as the spermatic fluid in the case of the male. Unable to experiment upon himself, he made a public appeal to the female members of the profession, of whom there are always quite a number in Paris ready to undertake experiments in the interest of science and of mankind in general. These startling statements, have naturally made quite a stir in the French medical and scientific world, but the general opinion is that the worthy professor, who is of advanced age, is gradually lapsing into second child-hood and that the remarkable results claimed are curious fancies of an enfeebled brain.

W. T. R.

THE GERMICIDE TREATMENT OF GONORRHŒA.

In an editorial in the MEDICAL AGE of May 25, 1889, entitled "The Germicide Treatment of Gonorrhœa," I find the following:

"The clinical observations of DRS. BRYSON and BURNETT embrace 1384 cases seen in dispensary practice," * * * * * and further: "DRS. BRYSON and BURNETT are, in fact, convinced that the topical germicide treatment of gonorrhœa, both in the first, and in the secondary stationary period of the disease, is sure to result in failure: nay, more, their experience teaches them that, in the first and second stages, all local applications are harmful."

A few years ago, a physician of St. Mary's Hospital, Philadelphia (I think the Superintendent of the institution), had some five or six pages in the Therapeutic Gazette on gonorrhœa, claiming—among other absurdities—that

a cure of the disease could not be effected in less than several months, and that any physician who would claim a cure in as many weeks, was simply a quack.

I wish to join issue with these gentlemen. I have never yet written an article for publication simply for the purpose of seeing my name in print, as I believe many do, and I would not write this, except for the reason that I have become tired of seeing so much foolishmess in medical journals in the place of common sense.

Without going into the discussion of the pathology of a disease which is so well understood, I will say, if these learned physicians will throw some of their theory to the wind, and resort to a rational method of treatment, they will not experience so much difficulty.

Myself and many other physicians of my acquaintance only ask from four to twenty days to cure a case of gonorrhœa. I will relate one case:

About six months ago, Mr. G— consulted me. He had been treated during six months, but was no better than at first. I gave him:

℞ Fl. ext. kava kava,
P., D. & Co.'s, ℥ ii.

Thirty drops in half wine-glass of water every four hours.

℞ Fl. ext. matico, ʒ ij.
Zinc sulphate, grs. x.
Aqua rosæ, q. s. ad. ℥ iv.
Inject three times daily.

He called on the eighth day, well, and has remained so to the present time.

This only one case of the hundreds I have treated, with equal success. I think hydrastis equally as good as matico; I have cured many cases with no other treatment than kava kava, administered internally, but such cases are usually about twice as long in getting well as those that have local treatment.

I do not expect this article to fill any other sphere in medicine except the room it may occupy in the editor's waste basket, yet if those who write so often and so wisely on this subject, will give all mercurial preparations a rest for a time, and resort to the simple treatment above given, they will not find it necessary to use such large quantities of ink in telling what *they do not know* about the proper treatment of gonorrhœa.

W. D. Cole, M. D.

Boone, Iowa.

TREATMENT OF TAPE-WORM.

An editorial on the "Treatment of Tape-Worm," in the Age of May 25th, recalls a patient who had at different times submitted himself to treatment, but failed to secure the removal of the head. I prepared a remedy which I had some years prior copied from the columns of the Druggists' Circular, and administered it as directed, and in two hours and fifteen minutes had about sixty feet of worm, including the head. Since that time I have administered it to more than twenty patients, the last patient myself, and in each case have been successful in removing the head. The remedy produced neither pain or nausea.

I herewith give the formula, hoping it may prove as efficient in other hands as it has in my own:

℞ Bark of pomegranate root, ℥ ss.
Pumpkin seeds, ℥ j.
Ethereal ext. male fern, ʒ j.
Powdered ergot, ʒ ss.
Powdered gum Arabic, ʒ ij.
Croton oil, gtts. ij.

The pomegranate root and pumpkin seeds to be thoroughly bruised, and with the ergot boiled in eight ounces water 15 minutes and strained through a coarse cloth. The croton oil to be well rubbed with the acacia and extract male fern, and then formed into an emulsion with the decoction. Sig. A large dose of Rochelle salts to be taken the preceding night, and eat no breakfast the following morning. At 10 o'clock A. M. give the emulsion at one dose.

W. D. Cole, M. D.

CASCARA SAGRADA AND GLYCERIN IN CONSTIPATION.

Dr. Geo. E. Turrill, of Wauseon, Ohio, writes: The superiority of cascara cordial over the fluid extracts in regard to bitter principles is great, and I have used it almost constantly during the past eight years with excellent results. I believe we possess nothing in medicine better adapted to relieve constipation in general, and especially that peculiar to pregnancy. There are cases, however, in which it has been a failure, neither the time of taking or size of dose making any material change. After noting these facts it occurred to me that the addition of glycerin might prove a valuable auxiliary, accordingly I prepared a mixture, consisting of four-fifths of the cordial to one-fifth of glycerinum, administering as before. The results have been excellent. I frequently see cases of extreme irritability of the mucous membrane of the bowels, and in these conditions I believe the glycerin quiets the irritability and accelerates the action of cascara. Permit me to cite a few cases:

Mrs. A. Cancer of rectum and severe constipation with great pain; cascara cordial given as above; results remarkable. Not only was the constipation relieved, but the pain lessened and gradually the ulcerating surfaces healed.

Case 2.—Mrs. Y. Rectal ulcer with hemorrhoids; constipation extreme. Prescribed cascara and glycerin. The constipation is removed, the hemorrhoids improving, and the ulcer healing.

Case 3.—Miss J. Diabetes. Nothing relieved the constipation until glycerin and cascara cordial were employed.

I might mention others, but these will suffice for the present.

The Medical Age.

A SEMI-MONTHLY REVIEW OF MEDICINE.

B. W. PALMER, A. M., M. D., Editor.

—Published By—

GEO. S. DAVIS, Medical Publisher, Box 470.

DETROIT, MICH., JULY 25, 1889.

Editorial.

PATENT MEDICINES.

In his admirable report to the National Board of Health, on Adulterations of Medicines, Dr. Lewis Diehl alludes to the subject of patent medicines, the trade lists of which, he says, embrace a much larger number of articles than the Pharmacopœia, and their consumption is at least equal to, if not greater than that of legitimate medicines. It is useless to argue with the public that the pernicious effects of this class of medicines far outweigh their good; that their reputation is based altogether on temporary or imaginary relief; and that, being on this account recommended and resorted to in every emergency, they are likely to do mischief. It is difficult for the public to understand that the manifestations of pain or discomfort are only symptoms of the disease, and that such symptoms, though to the uninitiated apparently identical, may point to entirely distinct maladies, and that therefore the remedy indicated for the one may be entirely unsuited or even hurtful in the other. Moreover, powerful narcotics or stimulants are often largely represented in these nostrums, and it is easy to understand, not only how temporary relief may be obtained, but also how such drugs, injudiciously taken, may be the direct cause of habits, the ultimate consequences of which are moral and mental ruin and death.

By the existing drug law all patent and secret medicines are subject to the same examination as other medicinal preparations, and cannot be permitted to pass the custom house for consumption, unless the special examiner be satisfied, after due investigation, that they are fit and safe to be used for medicinal purposes. But how is the special examiner to determine the fitness and safety for medicinal use of a preparation unless he has some standard to guide him? It is true, he can by analysis determine the presence of active medicinal agents, quantitatively as well as qualitatively, but the presence of such agents, whether in large or small proportion need not absolutely debar the medicine from entry. If, on the other hand, the quality as well as the quantity of active medicinal agents allowable in such medicines were plainly defined, a standard would be established whereby special examiners might regulate their action.

To reach this class of patent medicines, as well as those that are prepared in this country, both United States and State laws are necessary. The following modification of the plan requiring the publication of the formula upon the label is proposed by Dr. Diehl as just to manufacturer and consumer:

1. Designate by law what substances shall be regarded as "active" medicinal agents.

2. Designate the extreme quantity of such active medicinal agents that may be contained in a given quantity of a "patent medicine," both with reference to its being the sole active component, and to its being combined with other active agents possessing similar physiological action.

3. Require all patent medicines, whether of foreign or domestic manufacture, to be registered by their full title at some suitable office, under the control of the general government; require also that the uses to which such medicines are to be applied, and the doses in which they are recommended shall be placed on record.

4. In the event that such a "patent medicine" contains one or more medicinal agents classified as "active" within the meaning of the law, require the manufacturer to deposit at the registering office information of the exact quantities of such that are represented by a given quantity of the preparation.

5. Require under all circumstances that the minimum and maximum doses of the "patent medicines" be distinctly printed on the label; and if it contains one or more of the "active" medicinal agents designated as such by law, that their presence be unequivocally stated upon the label; not, however, requiring that their quantity or proportion be stated upon such.

"A law of this character would enable governments, and the medical profession as well as the consumer, to form in some degree a judgement of the character and probable effects of a patent medicine, and would greatly tend towards ameliorating and preventing the evil observed under existing conditions."

It is evident that the evil cannot be altogether abated, and even if the present generation, who are most interested in suppressing the quack-medicine nuisance were to root out the existing vile crop, they would see another equally noxious spring up; and therefore, beside such legislation as is above indicated, the general public needs enlightenment; for while the more intelligent classes already have no faith in a nostrum that is trumpeted as

cure-all, in the advertising columns of journals, the low and ignorant classes still seem to have more confidence in the professions of the charlatan and mountebank, than in legitimate medicine and in the scientific and conscientious practitioner.

ON THE TREATMENT OF CHOREA.*

AUGUSTE OLLIVIER has published in the Bulletin Général de Thérapeutique a paper in which he discusses the treatment of chorea.

He first postulates that there is no specific treatment of chorea. There are no causal indications, the only guides being hypothesis, analogy and empiricism. The list of medicines is a very long one, which means the greater part are inefficacious; and every kind of treatment is inefficacious if it has for its object to abridge the duration of the disease.

We know really nothing concerning the etiology and pathogeny of Sydenham's chorea except the influence of rheumatism and an ill-determined multiform nervous state. This is small material to serve as a basis for indications; hence we treat from day to day without any rule but the predominance of this or that symptom.

Let us take a case of simple uncomplicated chorea. What dominates the scene from first to last are the convulsive movements. On the frequency and intensity of the latter depend the gravity of the disease; these hinder nutrition, deprive the patient of rest, and entail in the long run nervous exhaustion and organic inanition fraught with dangers.

Chorea is a self-limited disease; we cannot cut it short, but if we can succeed in keeping within proper limits the muscular instability, and enable the child to support the neuroses without his general health materially suffering, —if we can prevent the profound anæmia and mal-nutrition which are so apt to follow,—we shall have done the best that can be done, and our empirical remedies will have rendered incontestable service.

OLLIVIER considers the treatment by strychnine, and TROUSSEAU, who advocates this remedy, reasons thus: We are in presence of clonic convulsions of a great part of the muscles of the body; they will end in fatigue, in a relative repose of Nieb and such a group; if now we can hasten the arrival of this phase, if we fatigue rapidly all the muscles by putting them into a state of tonic contraction, we shall hasten a cure. TROUSSEAU gave to children of from five to ten years nearly a grain of strychnia a day. The result was more than once favorable, and the method has been advocated by WEST, and HAMMOND; however, the judgment of the profession has condemned this treatment as hazardous and unsatisfactory.

Certain authorities have thought it rational to try and cure the disease by paralyzing the convulsive muscles. In England this result is sought by the administration of curare. In France, BOUCHAT prescribes eserine, and claims a cure in several cases in eight days. Other physicians have faithfully tried eserine only to meet with disappointment.

Again, it has been proposed to treat the perturbed nervous centres rather than the muscles, and OLLIVIER speaks favorably of the contra stimulant plan by tartar emetic, as advised by GILLETTE: Begin with an emetic dose, and every day give a somewhat larger dose till three doses have been given. He claims by this method rapid improvement is obtained. He speaks favorably of the ether spray, or better still, the chloride of methyl spray along the spine. He has tried Galvanism without good results, but has seen benefit attend the free use of bromide of potassium of which he gives fifteen to thirty and even sixty grains, three times a day, and associated with arsenic. He thinks antipyrin worthy of trial—fifteen grains three times a day. The administration of chloral is sometimes necessary to procure sleep when the restlessness and agitation are extreme.

Among the tonics, the first place is accorded to arsenic, which may be advantageously given in combination with iron and quinine. Mild cases get along very well with small doses of Fowler's solution after meals, and gymnastic exercise; in grave cases, the nerve sedatives must be pushed.

* Bulletin de Therapeutique, June 15th 1889.

EXECUTION BY ELECTRICITY.

A deal of rubbish is emanating from the general press, just now, regarding electrical executions, and the fact that the State of New York has decided to substitute for capital punishment by hanging. The condemned murderer, KEMMLER, through his counsel, appeals from the decision of the Buffalo courts, on the ground that electrical execution is "*cruel and unusual*," and, strange to say, the eminent counsel have been able to enlist a number of electricians and philanthropists in behalf of their client, and what is more, tap these gentlemen's pockets to their (counsel's) immediate benefit. Everywhere the cry is being sounded of "cruel and unusual," and all for what? Not for any cause that will benefit science, but to aid a justly condemned murderer to escape the equally just penalty of his awful crime. Thus RALPH W. POPE, Secretary of the American Institute of Electrical Engineers, says:

"This killing by electricity will prove more cruel than hanging, shooting, beheading, or any modern civilized method of execution,

because it is the most uncertain, *and the criminal must undergo more protracted mental agony during the preparations.* We do not know yet just what amount of electricity will kill a subject. Different individuals have different powers of resistance, and not only that, but the power of resistance in the same man may vary very greatly within half an hour or less. Take KEMMLER, for instance. A half hour before turning on the presumably fatal current he is 'tested.' There is no assurance of the correctness of this test. Of course the sure method would be to apply tremendous pressure, 5,000 volts or more. But then it is extremely possible that the body would be *horribly mutilated* in that case. *It is not difficult to imagine the preliminary sufferings of the man.* He must sit in the chair in an agony of expectation, while the executioner and his assistants are running about for an hour or more preparing the apparatus, he not knowing at what moment the current might be turned on; and then suppose, as may happen, that the shock should not prove fatal!"

All this would appear grimly amusing, even sarcastic, were not the utterances made in earnest. That they are made without forethought or consideration, and based upon mere theoretical assumption without any attempt at scientific reasoning, is apparent. The argument is on a par with that of the school boy who uttered a demurrer to a deserved thrashing on the ground it was liable to be "*painful.*" We were not aware that Euthanasia formed a part of our criminal jurisprudence, but if it does, we may soon expect to have executions conducted under or through anæsthetics. The nice gentlemany murderer, who sends his victim into the other world without a moments warning, often in the most hideous and cruel manner, must be treated gently, kindly and softly, lest he should suffer, even for an instant, a fraction of the pain he inflicted upon another. By all means gentlemen philanthropists, let us punish the man easily—so easily he will never know he is hurt. He has had plenty of time for repentance; plenty of time to consider his doom; been the recipient of bouquets and ice cream from the pious and foolish; and generally made a hero, and martyr of. After all these advantages it would be "unusual and cruel" if he should suffer, but if he must, by all means let it be under the anæsthetic influence of mingled chloroform and otto of roses, and his neck then dislocated by a silken rope, on a carpeted scaffold.

But, earnestly, why electricians object to electrical executions, is a mystery. The murderer certainly is not entitled to either sympathy or undue lachrymation, and in all justice demands the suffering entailed by execution. The limitation of suffering should not be measured by the amount entailed upon the criminal—his fate by the law, is denominated "*punishment,*" and the same law declares in stereotyped and measured words that he "*shall suffer*"—but by the moral and psychic influence exerted upon society at large.

Again, is there not something incongruous in our sociology when it demands the criminal on the gallows shall be enabled to evade as far as possible the penalty of his atrocity, while the good citizen suffering from incurable disease entailing the most excruciating suffering, a burden to himself and friends, must not commit *felo de se;* and the physician who seeks to make this patient's life even tolerable by every means in his power, is condemned, and liable to arraignment for homicide, if the latter should succumb to the efforts made in behalf of his comfort instead of from the disease *per se!*

Then, again, *is* hanging a less "cruel" method of execution, even though it is not "unusual," than electricity; and is the latter, as MR. POPE asserts, liable to "horribly mutilate" the criminal?

It is a well known fact that eighty per cent. of criminals suffering by the halter, die, not from dislocation of the cervical vertebræ and rupture of the spinal cord, but by slow strangulation. A blackened, swollen, tumefied face with eyes forced from sockets, and protruding half-chewed tongue, is not "mutilation," according to our hyper-sensitive philanthropists. In the city of Detroit there have been at least two, perhaps three, instantaneous deaths among electrical workers, due to direct contact with the electric current employed to light the city; but the reporters of the daily and weekly press, who seem to fairly revel in the horrible and and sensational, failed to discover mutilation; on the contrary, the corpses were described as "calm and peaceful as in life;" and this is the universal testimony as to the bodies of those who have succumbed to lightning strokes. If the current of an electric light wire is sufficient to cause instantaneous death, surely it cannot be a very difficult matter to calculate the strength necessary to execute a criminal. The plea of bungling too, cannot occur with greater frequency from the dynamo, than is already the case with the rope.

Regarding the "protracted mental agony" and the "difficulty of imagining the preliminary sufferings of the criminal," to which MR. POLK and his followers allude so pathetically, we imagine it will demand more firmly organized mental capacities than the average, to detect the greater cruelty and suffering, induced by an electrical execution which permits the victim to know his ultimate fate only an hour beforehand, over a fate of which he is cognizant for a month, six weeks, or more; and it is far-fetched indeed to describe the terrible agony of expectation while sitting in a chair

not knowing the moment the electrical current will be turned on, when it is notorious how a criminal is bolstered up with stimulants, or stupefied by narcotics, before being led to the scaffold with tottering steps, to stand while the black cap is adjusted and the bonds tested, and the priest indulges in a hommily upon vice and the rewards of the future world! Of course there is no agony of expectation under the black cap before the bolt of the drop is drawn!

"And then suppose, as may happen, that the shock should not prove fatal?" And suppose, MR. POLK & CO., the shock *does* prove fatal? In any event, the condemned criminal is of no benefit to society; but if the shock is not fatal, he may become the medium of some scientific information, which, if he is as good and repentant as he usually pretends to be at this last moment, he will not begrudge as part expiation of his evil. If one shock will not destroy life, the second can be made effectually to do so, and the clever philanthropic electricians know well that a severe shock deprives of sensibility and suffering; as far as the condemned is concerned, it is immaterial whether he receives one or ten charges of electricity. The moral of all this, moreover, is that the criminal should, in expiation of his crime, be made to suffer punishment, and if possible be made of some value to science; that execution should not be deprived of its terrors since it is intended as an example, and to repress crime, while euthanasia executions tend rather to place a quasi premium thereon. Honest dogs yield up their lives to experimental science, and who will claim the honest canine is inferior mentally or morally, or more soulless than KEMMLER, "RED-NOSE" MIKE, or IRVING LATIMER.

AN INTERNATIONAL COURTESY.

Under this heading the British Medical Journal of July 6th contains the following editorial:

DR. BILLINGS, the accomplished American physician, whose address at the International Medical Congress in London excited much admiration, and whose works are well known and greatly esteemed by all of us, has recently passed through London—where he has been the guest for a few days of DR. ORD—on his way to Oxford, to receive there the distinction of an honorary degree in law at the annual encænia. Being charged with the preparation of the forthcoming census of the United States he could make but a brief stay, and is already on his way home, otherwise we might have hoped to have seen him at our London meeting.

Few could have deserved this new honor better. DR. BILLINGS is still a comparatively young man, when the work which he has done, the position which he fills, and the honors which he has obtained are considered. He was born in Indiana in the year 1838. He took his degree of M. A. at Miami University, Ohio, and the degree of M. D. at Cincinati, Ohio, in the year 1860. In the next year the war of secession broke out, and he entered the Federal military service. His energies and abilities at once marked him as a man to whom serious responsibilities could be entrusted. He was Medical Inspector of the Army of the Potomac in 1863 and 1864. He served with the Federal army in the field, being present at the battles of Chancellorville and Gettysburg, and subsequently took part in GENERAL GRANT'S fighting in Virginia His talent for organization found ample field in the development of the great field hospitals, with their thousands of wounded and sick. After the war he and others were occupied in creating that monumental record—the great Medical and Surgical History of the War of the Rebellion. This work could only be accomplished with the aid of the Government, and this was dispensed to DR. BILLINGS and his colleagues with a generosity which has enabled them to produce a work, than which none other of like magnitude, completeness, and merit exists. It will prove for many years to come, as it has already proved, a treasure-house of information.

A work not less important, and perhaps more after his own heart, has been the making of the Army Medical Museum and Library, at Washington. The museum is really a wonderful thing for its age, both from the quantity and quality of the material arranged in it. It has been now transferred from the old theatre building in which Lincoln was murdered to the palatial structure on the shore of the Potomac, specially built for it under DR. BILLING'S direction. Here, too, the wise liberality of the Government is displayed in the completeness of the arrangements and the great expenditure they have entailed. Here, too, are many rooms where, under the supervision of its head, much good work is being accomplished.

It is, we believe, not too much to say that the library of the Army Medical Department is the largest and most complete medical library in the world. It, likewise, owes its development to the fostering care of DR. BILLINGS. It contains not only all the best modern books and periodicals in every language, but a collection of the classic works of every kind connected with medical knowledge of our forefathers in scientific work. Not only is it free to everyone to enter, but to any part of the great United States, books from this library are forwarded on application, to any duly qualified man. The losses which this entails are stated to be infinitesimal. The crown has recently been placed on another great work fostered by DR.

BILLINGS in the opening of the Johns Hopkins Hospital at Baltimore, built from his plans and under his supervision, an account of which he recently published. No expense has been spared in the successful attempt to make this the most perfect of modern hospitals.

Amid all this primary official work he has found time for other offices and for the production of books. He has been Vice-President of the National Board of Health. He had charge of the vital statistics of the tenth census, bringing out a report in two large volumes. He has also charge of the vital and morality and social statistics of cities for the approaching census of the United States.

With all this important occupation, DR. BILLINGS'S official rank is less high than is generally supposed in this country. He is Major and Lieutenant-Colonel and Surgeon in the United States Army.

DR. BILLINGS has also done great service to the whole of the medical profession by his Index Medicus, begun in 1879, and still in regular publication. He is now preparing a large dictionary of medical terms, in two volumes, which is to appear speedily.

With such a record, it is not to be wondered that the University of Oxford, wherein all that DR. BILLINGS has done is well known to SIR HENRY ACLAND, should have deemed him worthy of the high honor of its D. C. L., thus adding his name to those of OWEN, ALISON, BRODIE, MILNE EDWARDS, VAN DER HŒVEN, CHRISTISON, STOKES, JENNER, GROSS, PAGET, LISTER, ALLEN THOMSON, WILLIAM FARR, SIMON, and others to whom she has given in the last few years her highest degree. Besides this honor, he already holds the honorary degrees of LL. D. Harvard, LL. D. Edinburgh, and M. D. Munich, and he is a member of the National Academy of Sciences in America, which may be in many respects compared to our Royal Society.

How various are the ways by which scientific medicine is being advanced is plain enough to our readers. It is pleasant to think that the United States are advancing along the whole line of knowledge. It is of no small moment that Washington, but lately only a political capital, is becoming a centre of scientific biological effort, through the rapidly expanding National Museum, and the labors of DR. BILLINGS in the War Office. The probable effects cannot easily be overestimated. The problem of the future of the United States is one of the most interesting, as well as the newest, in the history of the human family. The modern appliances for material growth there seen, have never in history been so rapidly developed, and we are glad that a firm grasp is likely to be taken by our American brethren of all of the circumstances that effect the progress of scientific, curative, and preventative medicine.

THE ROLE OF THE REFORMER.

Ultra reformers, no matter what may be their peculiar hobby, or the portion of the globe that supports them, ever appear in the same unenviable light when they attempt to reduce the brains of the Universe to the level of their own infinitesimal mentality: and, apparently, no method is to be neglected, however dishonorable, and no statement however false withheld, that can tend to the end desired.

Recently two members of the British House of Commons virulently attacked Inspector ERICHSEN because of the claim he is or was a Vivisectionist. It was with some amusement the House learned that the personal experiments of the Honorable Inspector had reference to the nature of asphyxia, and had been productive of so practical results as to secure for him the Royal Humane Society medal.

In the course of this attack, Mr. BERNARD COLERIDGE, supported by Mr. JOHN COLLIS and Queen's Counsel REID, endeavored to snatch a vote from the House upon the subject of vivisection. In the attempt was read distorted and falsified reports of experiments conducted on the Continent, with the assertion such were "daily repeated, with same atrocities," in the United Kingdom. Further, Mr. COLERIDGE graphically described how Prof. MCWILLIAMS, of Aberdeen, in his physiological experiments, opened the thorax and made horrible experiments upon the heart of living animals, denying the poor creatures the relief to be obtained from anæsthesia. Prof. MCWILLIAMS' experiments were read in detail from that gentleman's own published article in the Journal of Physiology, but in accordance with the tactics of this class of reformers, the paragraph that stated the animals under examination were experimented upon while under the influence of chloroform, ether, or morphine, was deliberately and maliciously suppressed, while great stress was laid upon the "cruel butchery," "unspeakable torture of the knife," etc. Not satisfied with this practical and wilfully intended falsehood referred to in the paragraph in which Dr. MCWILLIAMS stated the animals were frequently so profoundly narcotised that artificial respiration was necessary, the Honorable (*sic*) speaker, wholly ignoring the narcotism, went on to say artificial respiration was "one of the most horrible and ingenious tortures ever invented by designing man," as it consisted "in rendering the creatures powerless with drugs like curare, leaving them at the same time conscious and in full possession of all senses."

Mr. REID, Q. C., followed in the same strain, corroborating in every particular the asser-

tions of Mr. COLERIDGE, ending with the declaration that "the scientific class is composed of men whose deeds are infamous, and whose status is almost beneath contempt."

Sir JOHN LUBBOCK, Sir HENRY ROSCOE, Dr. FARQUHARSON, and other eminent gentlemen, after correcting the falsehoods, and showing the manifest intent to deceive, contented themselves with a plain unvarnished representation of facts. Nor did they fail to point out as utterly untrue, the statement made by the anti-vivisectionists that experimental science selfishly benefits man alone at the expense of the lower animals. Sir JOHN LUBBOCK asserted that, on the contrary, the lower animals receive the greatest benefit from experimental pathology and physiology, and referred with telling force to the appreciation manifested by the Agricultural Society of Great Britain, and their acknowledgment of the benefits derived from vivisection.

Commenting on the foregoing, the British Medical Journal remarks: "The fact is, scientific men are so accustomed to take no notice of the abuse heaped on them, that both they and the public are apt to forget of what metal the anti-vivisection agitation is composed. But experimental science has reason to be deeply grateful to the anti-vivisectionists in Parliament, for a lamer and more false series of charges were never made to a more impatient House, or more successfully pilloried by the Parliamentary representatives of science and the medical profession."

Book Notices.

SWEDISH MOVEMENT AND MASSAGE TREATMENT. By Hartvig Nissen. pp. 120. 12mo. Cloth. Price $1.00. Published by F. A. Davis, Philadelphia.

This purports to be a "practical handbook describing the most useful movements, and giving prescriptions for their use in those cases where they are most likely to be successfully applied in the sick room without apparatus." However, neither text or illustrations appear very clear in the matter of conveying information, and much that might be of value if accompanied by physiological explanation is by this omission rendered null. The book is more amusing than useful, and will suggest many things remote from the intentions of the author. If Parent Duchalet is to be accredited, some of the so-called movements are better intended to foster vice than to relieve existing disease. In fact, while there is much in massage that is of therapeutic value, its promiscuous teaching by irresponsible parties devoid of thorough physiological and medical knowledge, cannot but be pernicious, and its claimed benefits rank only with faith cure and other psychical nostrums.

AMERICAN ARMAMENTARIUM CHIRURGICUM. 846 pp. 4to. Price $1.00. Published by George Tieman & Co., 107 Park Row, N. Y.

In surgical works many of the instruments for performing operations are not illustrated, while in catalogues, on the other hand, a description of use and application is lacking. A good drawing of an instrument imparts an accurate conception of the form and construction, and an added description gives a clear idea as to the suitability of the tool or appliance. These facts induced Messrs. Tieman & Co. the well-known surgical instrument makers, to publish this volume explaining the use of instruments by both cuts and text as an aid to the practitioner in the selection of the most approved instruments and apparatus for the accomplishment of his purpose. Its value in this direction is incalculable. The price asked barely covers the costof binding alone.

DISEASES OF WOMEN. By F. H. Davenport, A. M., M. D. Large 12mo. pp. 317. Price $1.75. Lea Brothers & Co., Philadelphia, Publishers.

An excellent elementary work for students and junior practitioners. It fills a gap among gynæcological works, dealing as it does—and in a concise yet thorough manner—with the minor but most important points that are almost invariably omitted in general text-books, such as the mode of introducing specula, tents, pessaries, etc. The book is to be commended, both for the excellent results obtained, and for the modesty and thoroughness with which the author has done his work.

MEDICAL AND SURGICAL MONOGRAPHS. Vol. 3. No. 1. 8vo. pp. 254. Price $1.00. Wm. Wood & Co., Publishers, N. Y.

This, the July number, contains: "Cancer and Cancerous Diseases" (Sir Spencer Wells, F. R. C. S.) "Cardiac Dyspnœa and Asthma," (S. von Basch), "Influence of Menstruation and of Pathological Conditions of the Uterus on Cutaneous Diseases, (Dr. L. Grellety), "Tension in Surgical Practice," (T. Bryant, F. R. C. S.) and "Antisepsis and its Relation to Bacteriology, (Dr. J. Neudorfer).

All these essays are by well known authors and specialists, and will doubtless command a wide circle of readers.

SYNOPSIS OF HUMAN ANATOMY. By Jas. K. Young, M. D. 12mo. pp. 393. Price $1.40. Published by F. A. Davis, Philadelphia.

This is not intended as a text-book, but merely to serve as a *remembrancer*, a purpose it will well fulfill. The arrangement is excellent, the illustrations fair; type and paper good; and it possesses a valuable addenda in the shape of an exhaustive chart of the cranial nerves.

THE YEAR BOOK OF TREATMENT FOR 1889. 12mo. pp. 344. Cloth. Price $1.25. Lea Brothers & Co., Philadelphia.

A critical review of the practice of medicine and surgery for 1888. This book presents the practitioner a complete account of the more important advances that have been made during the year.

Notes and News.

A Letter to an Old Class-Mate of Twenty-five Years Ago.—

HENRY—Since I beheld thy jocund face,
A generation new has filled the place;
Others in those old halls have been preferred
To those that you and I have seen and heard.
Oh, how I, lingering on life's decline,
Recall those forms—hut fondest, HENRY, thine!
You will gladly some names with me recall,—
(I think of some, I could not name them all)
And chiefly those who, past all earthly woes,
Up to the sun have turned their earthly toes.
First ELLIOT fell, by some decree unjust
Of those dark powers we oft too reckless trust.
Old Death sought out the youngest, brightest, there—
They knew him best who felt his loving care.
I'll ne're forget his brilliant, laughing lecture
On the Homœopath's flimsy, airy texture.
Next, too, untimely fell PROFESSOR WOON;—
He tempted too oft old Charon's flood for good.
I see his piercing eye and ruddy face,
Again, him turn the lance with charming grace!
Twice the quick thigh cleanly he amputated
In twice six seconds' time, as it was rated.
Once the motley crowd hesieged at noon
His mortem room; there, whistling "Bonnie Doon,"
He met their ragged front and fiendish cry
With suavity,—*but lance in hand and lance in eye!*
Oh, wont old JIMMIE serve them saucy tricks
If they should crowd his room across the Styx!
The next upon the list, I fall on one—
How shall I speak thy name, loved HAMILTON!
My faulty pen, for ink to write of thee
Dips in my welling heart instinctively.
Who did not listening, love, and hang upon
The words that wisdom gave to HAMILTON?
Once—you were in the amphitheatre—
He entered; applause and hisses filled the air;
He looked around upon five hundred faces
Astounded, hut perchance to find some traces
Of outer cause to justify those jeers:—
His face was pale, his eyes filled quick with tears;
Soon one among the students (God bless him!)
Arose and said: "They did n't mean to hiss him,"
That "they were told applause not to hestow
Because of people lying sick helow."
No, HAMILTON, thy students would not hiss thee;
Their arms were ever ready to caress thee;
No name their hearts is deeper 'graved upon,
Beloved, thau thine, FRANK HASTINGS HAMILTON!

Now I might well this foolish letter close:—
Still there's another name as dear as those
I've mentioned here.—No time was hetter spent
By all, than with the senior AUSTIN FLINT.
There now he stands with spectacles on nose,
Astute, sedate, rohust,—a lordly pose!
Careful and critical, he quized us all,
He knew the toiler from the prodigal!
How smoothly well he told that hallet story!
"Take it, I've tuck that same, meself, begory."
And then with upturned eyes his glasses o'er
Observed with solemn face the class' uproar!
A thorough teacher he! and wide his fame!
Proud are we all to count with us his name!—
Still there's another I would mention, too,—
PROF. STEPHEN SMITH,—was he not fond of you?
We looked to him to fill the chosen chair
Of any one that should he absent there.
His was the weekly, universal quiz;
If we learned not, the fault was ours, not his.
And now I think I'd hetter close this letter,
'Tis running into dogg'rel—nothing better.
What is hetter, I'm coming down to see you
Some lucky day when I've nothing else to do.
If years have made you change in any part,
I trust it is in bones and not in heart.
So then give me your hand, my own dear JONES;
I'll make you feel it sure, if 'tis in the bones.
If in the heart, I'd sooner he among the gnomcs.
Till then, yours ever truly,

L. E. HOLMES.

Carlyle on Medical Men.—In the recently published letters of Mrs. Carlyle there is a sentence in one of her husband's which it will be interesting to medical men to read. Coleridge, the poet, worn down by intellectual strain and the pernicious habit of indulging in opium, wellnigh penniless, neglected by friends and former patrons, was received into the family of Mr. Gilman, No. 3, The Grove, Highgate, a medical practitioner of considerable local repute, in whose family he lived for eighteen years, and was much esteemed. "Poor Coleridge died on Friday," writes Carlyle; "he had been sick and decaying for years, was well waited on, and, one may hope, prepared to die. Carriages in long files, as I hear, were rushing all round Highgate when the old man lay near to die. Foolish carriages! Not one of them would roll near him (except to splash him with their mud) while he lived; *had it not been for the noble-mindedness of Gilman, the Highgate Apothecary, he might have died twenty years ago in a hospital or in a ditch.*" Distracted in mind, weakened in body, and impecunious—

> "O! who can tell what days, what nights he spent
> Of tideless, waveless, sailless, shoreless woe!"

Estranged from former social enjoyments and neglected by friends, he found in Mr. Gilman's family a haven of rest, such as Cowper, the poet, had found in the family of Dr. Cotton, at St. Albans, under similar circumstances. These instances tend to rivet the attention to the beneficence of the profession, and reflect what in a minor degree may be found in every district of the country. Medical men are thought to be hardened by the suffering their daily vocation obliges them to witness, but it is not so. Authors, artists, literary men of every kind and degree, widows, and orphans, as well as the poorer portions of the community, could tell how the practice of the medical profession tends, as Watson says, "to temper the feelings and touch the heart."

The Stolidity of the Chinese.—According to the "Deutsche Medizinal-Zeitung," an English physician residing in China points out that the most characteristic difference between the Chinaman, and the Caucasian of Europe, lies in the former's lack of nervousness. We in America, who have seen the Celestial working incessantly in his little laundry, shall find no difficulty in believing the statements of the English physician when he says: "The Chinaman can write all day, he can work all day, he can stand for a whole day in one position, weaving, hammering gold, or cutting ivory, without once being attacked by nervousness. This peculiarity makes itself apparent in early youth. The Chinaman can bear any kind of bodily exercise. Sport and play are to him unnecessary labor. He can sleep anywhere and in any position—amid thundering machines, deafening noises, the cry of children, or the wrangle of grown people, on the ground, in bed, or on a chair." In his own innocent way the Chinaman is almost a Sybarite.

M. Pasteur's Latest Return.—At the Academy of Sciences, M Pasteur recently presented a note of the results observed in the Pasteur Institute from May 1st, 1888, to May 1st, 1889 (La France Médicale, No. 73). During this period 1673 persons bitten by rabid or presumably (*très suspects de rage*) rabid dogs had been treated, 1487 French and 186 foreigners. Of this number—viz., 1673—118 had been bitten in the head or face. Six persons (4 bitten on the head and 2 on the limbs) had been attacked with rabies during treatment, 4 others were attacked within a fortnight after the close of the treatment. Three persons bitten on the head died after the treatment had been completely finished, and these therefore represent the total cases of failure—viz., in the ratio of 1 557. Or, if, "which would be illogical," adds M. Pasteur, to these 3 cases were to be added the 10 above mentioned, there would still be a mortality of only 1 in 128.

Dr. Brown-Sequard's Hypodermic Fluid.—The extraordinary statements made by Professor Brown-Séquard as to the efficiency of hypodermic injections of fluid expressed from the testicles of young animals in senile debility,* have been to a certain extent confirmed by M. Variot, who made a communication to the Société de Biologie on June 29th. The patients chosen were debilitated men, aged 54, 56, and 68 years respectively, and they were not informed of the nature of the treatment adopted. In all three cases the injections were followed by general nervous excitement, increased muscular power, and stimulation and regulation of digestion. M. Brown-Séquard said that M. Variot's observations disposed of the objection that the results he had observed in himself were due to "suggestion."—*British Med. Jnl.*

* See Medical Age, July 10th, p. 301.

Therapeutic Brevities.

Narogamia Alata.—(E. Ghillany, in Ztsch. des A. Oe. Apoth.—Vereins.)—Two years ago, this drug was mentioned in current literature, and received very favorable reports from Hooper (see Fortschritt, 1888, p. 8 and 9). It has also been used experimentally in the "K. K. Allgemeinenkrankenhause," of Vienna, with apparently good results. The plant belongs to the family of the Meliaceæ, and is besides known under the name of Goa ipecacuana," or as the Portugese term it "Trifolia," the Indian name being "Nelanaringu." According to Hooper's description, it forms a small smooth or polished shrub, not exceeding one foot in height, possessing various erect or recumbent thin slightly branched, wooden stems. The leaves, three sessile, spherical-ovate, entire or bluntly-toothed leaflets, are one to four inches long; the blossoms white, with yellow styles, about one inch long; the pods triangular and three-lobed.

The rhizome, used in commerce and in medicine, is spiral, watery, light-brown; the cork layer, flour-like and easily removed by rubbing. The cross section of the root shows an external brown and an internal yellow layer of bark and yellow wood. The active principle which Hooper found in the layer of bark and named Narogomin, forms crystallizable salts with sulphuric, nitric and hydrochloric acids. Besides the alkaloid, the bark contains fatty oil, wax, gum, asparagin, starch, but no tannin.

In its habitat, south of the Concans, along the whole coast of Malabar as far as Travancore, the plant is employed as an emetic, and remedy for biliousness, rheumatism and digestive troubles. Bidie, who experimented with it at Hooper's prompting, praises the action of the remedy in flux (diarrhœa?), in doses of 1 to 2 grammes, and in small doses also as an expectorant in catarrhal conditions of the bronchi. While he recommends the use of the root in powder, or alcoholic tincture, we have employed here a fluid extract, placed at our command by the firm of Parke, Davis & Co., of Detroit, U. S. A., through the intermediation of Messrs. G. & R. Fritz. The preparation is a clear golden-brown liquid, of pronounced odor recalling that of valeriana celtica. Diluted with a little water, it yields a milky turbid solution, which upon the further addition of water still remains opalescent; heated to a red glow on plantinum, the preparation leaves abundant ash. The dose is 3 to 5 grammes in 20 g. of distilled water, mostly, however, aq. laurocerasi. Further information with reference to mode of application and action may be awaited in the early publication of Prof. Dr. Drasche.—*Der Fortschritt*, June 1, 1889, p. 221.

Egasse on Some New Vegetable Diuretics.—Three plants of recent introduction have been found to possess valuable diuretic properties—pichi or piché, bean flowers, and chinaphila

umbellata. Piché (Fabiana imbricata), is a native of South America, and the parts used are the stems, twigs, and flowering tops. Treated by ether the plant yields a large proportion of a green resin. The aqueous decoction is of a brown color and free from turbidity. The plant has long been utilized in Chili in the treatment of inflammatory conditions of the urinary tract both in man and animals. In England and America the plant is reported to have given excellent results in cases of cystitis, gravel, and renal congestion. It is usually presented in the form of a decoction, made by boiling an ounce of the cacumina in two pints of water for half an hour. Three or four pints of this decoction should be given during the twenty-four hours. In the States, a fluid extract of the plant is used. The common bean (Faba vulgaris) is the plant universally cultivated for alimentary purposes. An infusion of the flowering tops (a 'pinch,' in a cupful of boiling water) has a marked sedative effect in cases of nephritic colic and dysuria. It has been used for centuries in Sicily and Calabria to combat the uric acid diathesis and calm the pain of nephritic colic. The natives prepare a decoction with one-third of an ounce of the dried flowers in two pints of water, reduced by ebullition to a pint, which is about the dose for 24 hours, and is given on the supervention of an attack. It has recently been tried on a large scale, and competent observers are inclined to think highly of its powers. It acts as an indirect diuretic and anti-spasmodic, like the meadow-sweet or lime-tree tops, but more energetically. The chimaphila umbellata or winter green, grows on the mountains of North America, Russia, Siberia, etc. It is an evergreen with pale yellow or rose-colored flowers, and is quite distinct from the plant usually known by the name of wintergreen (*Gaultheria procumbens*). It is employed in the same class of cases as the preceding, but its chemistry and pharmacology are still very incomplete.

Rapid Cure of Erysipelas.—In the discussion which follows the reading of a paper on "The Use and Misuse of Disinfectants and Deodorizers in Medicine," by Dr. Henry Jackson, in the Suffolk District Medical Society, Dr. J. C. White took exception to the reader's statement regarding our lack of control over erysipelas. He said:

"I would like to state that I consider that one may get absolute control over erysipelas, generally within three days, by simple treatment. Of one hundred cases of ordinary facial erysipelas treated, I should not expect more than three that would not yield within three days, very likely within forty-eight hours with the simplest antiseptic treatment. My custom is to always treat cases of that sort by the application, during alternate hours of the day and evening, of a mild solution of carbolic acid in alcohol and water as an evaporating lotion. It is only in very exceptional cases that the disease is not almost completely under control, and it has disappeared within forty-eight hours; but after three days it would be extraordinary if by this means every vestige of the disease had not disappeared. This has been my only treatment in erysipelas for many years. I have never known it to fail. I have never given a drop of medicine internally. I feel that I have absolute control over the disease. I am speaking now of ordinary erysipelas not of the deep-seated phlegmonous erysipelas, of course."

When asked the strength of the solution used, Dr. White gave the following formula:

℞ Cryst. carbolic acid, ʒ ss.
Alcohol } ää ʒ jv.—M.
Water }

—*Boston Medical and Surgical Journal.*

A New Cure for Cancer.—One of the methods of the spontaneous cure of cancer, if such may really be thought to take place, is the limitation of the tissue degradation by an inflammatory process which brings about cicatrization outside the affected areas and cuts them off from the organism as effectually as does—or should do—the surgeon's knife. Many efforts have been made to induce this condition of things artificially by the use of caustics and other irritants, but, owing to the fact that their action is mainly confined to the superficial structures, with only moderate success. Powerful electric currents, if they act at all, probably do so in this way. Another plan is to bring to bear disintegrating or digestive agents, such as papain. A correspondent, writing to a contemporary, points out that it is essential to the action of papain that the vitality of the affected area should be lowered, and when this "lowered vitality" exists or is induced, the dissolvent action of papain on the proliferating cell growths is very marked. His plan, therefore, is to combine the action of a strong depressant with papain, and he suggests that a suitable formula would be the following:—Papain, gr. iij; thallin, gr. ij; gly. tragacanth, q. s. for one pill, from six to twelve of which are to be taken in the twenty-four hours. This combination should also be sprinkled on the ulcerated surface or used in the form of an ointment with lanoline. We can offer no opinion on the value of this plan of treatment, but there can be no objection to giving it a trial in patients who decline operative interference.—[We would suggest instead of papain some of the efficient pepsins now manufactured.—Ed.]

Adonis Vernalis in Diseases of the Heart.—(J. Jumon, in La France Medecale). This plant has been used since time immemorial in Russia, as a folk-remedy in diseases of the heart, dropsy, etc., and has frequently during the past several years been the object of scientific investigation. Adonidin and picro-adonidin have been produced from it; the latter has been employed with good results in cases of mitral and aortal insufficiency, administered in chloroform water in doses of 0.001 grm. daily. Another species of this plant grows in Italy—Adonis æstivalis, with which experiments have been made by Marfori and Borgiotti. These showed substantial improvement of the subjective symptoms—cyanosis disappeared, diuresis ensued, œdema receded, digestion improved, and the appetite returned; in many cases a diminution in the volume of expansion of heart and liver were observed, and the frequency of the heart beats diminished with increase of diuresis. The special indications for the employment of

adonis are, diseases of the heart accompanied by pronounced stasis phenomena, in which, in addition to regular rhythm, permanent diuresis is also desired. Adonis has this advantage over digitalis, that it may be given without interruption until complete cure is effected—for 15 to 20 consecutive days, provided that the diuresis proceeds normally. The dose is four to eight grm., in the form of infusion.—*Deutsche Medizinal-Zeitung.*

Rheumatism, Rhus Toxicodendron in.—Dr. John Aulde (Medical News) says of rhus toxicodendron in subacute and chronic rheumatism that it is: "A remedy which has attained some local celebrity in different sections of this country, and one, too, which has been used by some practitioners abroad. The drug is referred to by Dr. Phillips in his excellent treatise, and from this we learn that it was first brought to the notice of the profession in 1798, by Dufresnoy, a physician of Valenciennes. Later, some interesting observations were made upon it by Alderson, of England, and in 1836 it was included in the London Pharmacopœia. Dr. Phillips suggests that rhus is valuable in various subacute and chronic rheumatic affections of fibrous tissues, and that the synovial membranes seem to be less amenable than the fibrous structures, such as tendons, ligaments, and fasciæ. He also recommends its use both locally as a liniment, and internally in the later stages of rheumatism 'when the patient suffers still from wearing stiffness and aching of subacute character in the joints.'" Seven cases are reported in which the remedy, in one-minim doses of the fluid extract, three times a day, acted successfully.

On the Diuretic Properties of Glucose.—Milk has long been recognized as one of our most reliable diuretics, frequently proving successful in causing diuresis when the therapeutical arsenal had been exhausted in vain. No serious investigation, however, seems to have been made into the relative value of the various constituents of milk in bringing about this result. As far back as 1879, M. C. Richet demonstrated that lactose, saccharose, and glucose possessed diuretic properties, by a series of experiments carried out on animals. Since then M. Germain Sée has turned his attention to the subject, and has shown that the diuretic action of milk sugar exceeds that of milk *per se*, and never fails to produce the desired effect. M. Dujardin-Beaumetz has verified his observations, and adds that glucose, which has the advantage of being perfectly soluble in water, promptly causes an abundant diuresis.

Creosote in Diabetes Mellitus.—Dr. Vincenzo Valentini recounts two cases of diabetes mellitus in brothers, in which, despite the meat diet recommended by Prof. Cantani, sugar was secreted in the urine. It was only when they had recourse to creosote (at first four drops daily, gradually increasing to ten drops) that the sugar disappeared from the urine, and did not appear in it again, in spite of indulgence in cereal foods and substances containing sugar. In obstinate cases the author recommends creosote all the more warmly, as it agreed well with both patients.—*Deutsche Medizinal-Zeitung.*

Bromide of Gold in Epilepsy.—Goubert recommends aurous bromide in the treatment of epilepsy, as better, and longer borne, than other bromides. Medium dose, 0.008 grammes, gradually increasing to 0.012 grammes for adults; 0.003 gr. to 0.006 gr. for children. The author also successfully administered in migraine, and in three cases of struma exophthalmica.—*Jour. de Med. de Bruxelles.*

Medical Progress.

GLYCERITUM PEPSINI VITULINI:* (GLYCERITE OF CALF PEPSIN).—A form of digestive ferment especially adapted to the treatment of the condition of apepsia in young infants.

After the introduction of pepsin into medical practice by Corvisart, about 1854, it gradually grew in favor with the profession, until now it may be regarded as the acknowledged and almost indispensible remedy in the treatment of cases of slow and imperfect digestion. In fact it appears to be the rational means for relief where the symptoms are caused by a deficiency of digestive power in the gastric juice, whether this occurs as the result of inherited weakness or of some organic or systemic disease.

Under the stimulus of an ever-increasing demand, the processes of manufacture have greatly improved, until at the present time a substance possessing high digestive power, representing the active principle of the gastric juice, is a well-known commercial article. Having gained an established position as a remedy, the Committee on Revision of the United States Pharmacopœia, in 1880, finally admitted two preparations of pepsin into the Pharmacopœia, and prescribed a standard of digestive strength and the tests by which this can be determined. Both chemical test and clinical experience have shown that there is great diversity in the digestive value of commercial pepsins. This is not only admitted by the manufacturers of this article, but they also publish analyses by competent chemists demonstrating such variation; each being peculiar, however, in proving that the pepsin made by every individual advertiser is superior to that made by all others. The only explanation we can suggest for this remarkable discrepancy is, that pepsin in the usual form (in powder or scales) is most active when recently made; or, in other words, in the dry state it more or less quickly loses its digestive power. In truth it has been found, by actual investigation, that the most efficient means of retaining this peculiar power is to preserve the substance in the form of solution; and of all the various menstrua proposed and tried, glycerin seems to be by far the best. As has been conclusively shown by Scheffer, of Louisville, there is an incompatibility between alcohol and pepsin, so that almost all the digestive activity is lost by using this as a vehicle. Therefore, all the various wines and elixirs of pepsin are necessarily weak in their digestive action, and, indeed, most of them are not only

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without such action at all but they also harden albumen and make it less digestible. As digestion is essentially a process of hydration, alcohol, by dehydrating the albumen, to this extent actually hinders instead of assisting the stomach in its work.

It is to the celebrated philosopher Spallanzani that we owe our knowledge of the fact that the digestive power of the gastric juice resides in a certain organic principle, which was subsequently separated in an impure state, by the great physiologist Schwann, and named by him "pepsine." Payen afterwards suggested the title "gasterase" as being more appropriate; but it was never accepted by the profession. Pure pepsin was first obtained by Wasmann, by a process which was afterwards adopted on a large scale by Boudault in preparing the "pepsine Boudault," in which the pepsin was combined with starch so that it could be dispensed in the form of a dry powder. Scheffer subsequently suggested milk-sugar as a better vehicle, and this has been adopted in the officinal preparation, pepsinum saccharatum. Although the powder has some advantage for dispensing, Scheffer and all other authorities on this subject agree in preferring the liquid form, which is more permanent.

A curious fact noted by Senebier, the French translator of Spallanzani's work,* was that although the active principle of the gastric juice seems to be identical in different species of birds, quadrupeds and men, yet it differs somewhat in its digestive properties in different animals. For instance, the gastric juice of dogs digests bone, and in birds that do not vomit, like the heron, the same fact is noted; while in other birds, like the crow, which regurgitate bones and indigestible parts of the food, the gastric juice is less powerful and will not dissolve bone. In other words, there appears to be a natural relation existing between the ordinary food of an animal and the quality of its gastric juice. This is a suggestive fact that might be utilized in medicine. For example, although our National Pharmacopœia only recognizes that derived from the hog, foreign Pharmacopœias also admit pepsins obtained from the fresh and healthy stomachs of the sheep or the calf. The reason why hog-pepsin is principally used in this country is that Scheffer found that it is the most active, and, perhaps, also because of its cheapness. From the habits of feeding of some men, it may also be supposed to be the most appropriate artificial digestant to be introduced into their stomachs. In very young infants, however, the case is different. Here the pepsin prepared from the stomach of the sucking calf would seem most suitable. This seems especially appropriate where the child must be fed upon cow's milk, as so many of them are. Indeed, the death of a large proportion of bottle-fed children is directly attributable to the fact that their digestion is not equal to the task of converting the casein of cow's milk into soluble peptones. Moreover, the milk-curdling principle in the gastric juice of the calf may be reasonably supposed to differ notably from that of either the sheep (or Boudault's pepsin) or the hog (ordinary pepsin), and the result of its action upon milk to be more compatible with the subsequent task of peptonizing the coagulum thus formed, because this is part of its physiological action. It is well known that rennet-wine has been used with some benefit in the treatment of defective digestion in infants, but from the fact that pepsin is almost insoluble in wine, it can have very little power of directly aiding digestion. I have recently, with the kind assistance of Mr. W. H. Llewellyn, one of the principal pharmacists of Philadelphia, had some experiments made with calf-pepsin, extracted in the ordinary manner from the fresh stomachs of young and healthy calves with the aid of glycerin, and dispensed in the form of solution. From the moderate experience I have had with it, I have been much pleased with its effects in appropriate cases. It is pleasant, easy of administration, and appears to keep its powers well. The introduction of a small amount of the lacto-phosphate of lime was decided upon in order to ensure a slightly acid reaction, and because a small quantity of calcium phosphate is a desirable addition to the diet of children reared upon artificial food.

It has seemed to me more natural to add the digestive principle after the milk has reached the stomach, rather than to peptonize the milk previously, although this can readily be done if desired, and in the case of older children and invalids a very agreeable article of diet may be made in this way.

In conclusion, there is an important question with regard to the administration of hog-pepsin to young infants, especially in summer, when there is a tendency to diarrhœa; a question which has often occurred to me, and yet I have never seen it referred to. The tendency of swine to suffer with attacks of cholera is well known. Now, with our present knowledge of the relation of diarrhœal disorders to bacteria, the question is pertinent, "Are the precautions adopted usually by the manufacturers of pepsin sufficient to insure against possible contamination with pathogenic micro-organisms?" The natural result of administering a pepsin product thus contaminated to an infant already suffering with digestive disorder should make us hesitate before prescribing, and lead us to adopt every precaution in order to secure for our patient a pure and carefully made pepsin. I declare very positively that an artificial digestant which has an offensive putrefactive odor, bears upon it, for me, the seal of its own condemnation. Therefore, when I have occasion to administer hog-pepsin either to children or adults, I prefer to order preparations as free as possible from peptones, such as the glyceritum pepsini or pepsinum purum,* which do not offend taste or smell and possess a high digestive power.—*Dietetic Gazette.*

THE BEARING OF THE GERM THEORY OF PHTHISIS ON THE TREATMENT OF THE DISEASE.—The fact that phthisis has come to be so generally accepted as a disease depending upon a germ whose extirmination is to be fol-

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* Expériences sur la Digestion de l'Homme et de Différentes Espèces d'Animaux: par l'Abbé Spallanzani. Avec des Considérations par Jean Senebier (Genève. MDCCLXXXIII.

* See article "About Pepsin" in Philadelphia Medical Times, vol. xix, p. 412, by writer.

lowed by the patient's recovery, has led many practitioners, the world over, to inject by means of hypodermic needles or by atomization through the air passages, medicinal substances of more or less germicidal or antiseptic power, with results which have varied, quite naturally, as much as the substances and methods employed. We think that this plan, like many others, is of value in a certain class of cases. If the cavity is easily approached and reached, and is in a putrid state, such procedures are eminently proper.

In the Bristol Medico-Chirurgical Journal for December, 1888, Shingleton Smith has given a very useful and valuable *résumé* of this question. At the very beginning he calls attention to the fact stated by Coats, namely, that an autopsy will very commonly show in cases of death from phthisis that there is secondary involvment of the intestine as a result of swallowing, instead of expectorating, sputum loaded with bacilli. This is often the real cause of the wasting which seems to be excessive for the size of the lesion in the lung. It is also evident from this, that any measures which may decrease the quantity of sputum will be accompanied by a gain which does not merely consist in decreased cough, but in avoidance of intestinal tubercule and disordered digestion. Where sputum is swallowed, it is recommended that the matter be rendered innocuous by the administration of iodine tincture, with or without carbolic acid, the dose of each of these being about one or two drops well diluted. *Beta* naphthol has been used for the same purpose.

Where the pulmonary lesion is localized and not general, the direct injection through the chest walls is by far the most useful method of attack. As is probably well known to the readers of the Magazine, iodoform was one of the first substances so employed, for the reason that it had proved of value when given internally, and because it seemed one of the best antiseptics that could be used in sufficient quantity. For those who wish to try this drug in this way, we give the following solubilities in the different fluids which are applicable: Absolute ether, 1 to 8 parts; rectified spirit, 1 to 80; oil of eucalyptus, 1 to 8; oil of almonds, sweet oil and vaseline, 1 to 60. The ethereal solution is the most convenient of all, although it is said to cause some dizziness for the moment. The quantity of iodoform used should never exceed one grain. Smith records a case of phthisis in which the disease seemed to be arrested, and in which no bacilli could be found for three years. One disadvantage, however, appears frequently under this method, namely, local irritation set up by the iodoform.

One of our countrymen, Dr. Cochran, of Wisconsin, has suggested as a substitute for iodoform a saturated solution of carbolic acid in camphor. Ninety-five per cent. solutions of carbolic acid dissolve about three times their weight of camphor, and the liquid so formed is a thin oleaginous mixture possessing much more strongly the odor of camphor than that of phenol. Camphorated-phenol does not produce any local irritation, and may even be injected hypodermically without causing inflammation. If it is considered necessary, iodoform may be dissolved in this liquid in the proportion of 40 grains to the ounce. Whenever the carbolated camphor was used, the patients improved steadily and gained in health. But even this mixture has given bad results, for in one case it was found to be productive of irritation and abscess of the lung, by the injection finding its way down along a bronchus, and thus causing death.

Sozoiodol and boroglyceride have not given very good results, and produce much irritation.

White, of New York, has suggested the following injection:

℞ Atropinæ sulph., gr. ¼.
Morph. sulph., gr. ¼.
Tinct. iodinii, f℥ iij.
Acid carbol., ♏xx.
Glycerini, f℥ iss.
Aquæ, q. s. ad, f℥ ij.
M.—Fifteen minims for each injection.

On the other hand Bloxam recommends the following:

℞ Hydrag. perchlord., gr. xxxij.
Ammon. chlor., gr. x.
Aquæ. f℥ ij.
M.—Ten minims injected once a week.

This was found useful in syphilitic phthisis. Yvon's formula consists in:

℞ Hydrarg. biniodid., gr. j.
Potass. iodid., gr. j.
Sodii phosphat., gr. ij.
Aq. destillat, q. s. ad ♏j.
M.—Inject from 5 to 10 drops once in several days.

We have said all that is in favor of lung injections. Let us turn to the unfavorable results which sometimes follow. These are acute suppurative bronchitis and acute pleurisy, and pneumothorax of a mild character has been noted. Violent attacks of coughing sometimes occur, and Ransome has seen cases where iodoform poisoning and hæmoptysis took place.

The care to be taken consists in an avoidance of injecting the medicine into the pleural cavities, in the use of antiseptically prepared instruments, and skillful insertion of the needle.

Where both lungs are involved and the disease is very active and far advanced, this treatment is not to be employed.—*University Medical Magazine*, July, 1889.

The Problem of Infant Feeding.—Intestinal Diseases of Children and Cholera Infantum *—Under proper conditions, the period of growth being antagonistic to decay, man in the infantile state should rarely be the subject of disease.

It is a proposition which will not be questioned, that the great majority of diseases of early life are closely related to interference with and interruptions of nutrition.

The problem of infant feeding has been before the profession prominently for many years, and I feel safe in saying that we are probably nearer its solution now than at any previous time. It goes without saying, that the first month is the most important period of the babe's nutrition, and the principle that they are most apt to go right who start right.

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* By I. N. Love, M. D.

No one will deny that on general principles the proper food for the infant is that furnished in the laboratory of its own mother's breasts; the exceptions prove the rule that they should be provided for with a substitute either from some other mother's breasts or a food which will, as nearly as possible, approximate it.

The most important thought which should be borne in mind, in considering the maternal milk, is the fact of its perfect sterilization, and in this fact we have the key to the situation.

Through the efforts of Escherich, Forster, Harrington, Meigs, Jacobi, Rotch, Vaughn, Booker, and other delvers in the laboratory and clinical observers, we have been given the cue furnished by Dame Nature, and should now be able to read the lines which follow readily.

If the conditions will permit, I think that the best substitute for the mother's milk, next to the healthy wet nurse, is a healthy, well fed, well-cared-for goat or cow; the milk of both these animals, although not identical in composition with the human milk, possesses the virtue of sterility.

Many things have to be considered in the selection of a substitute for the mother's milk.

I think we should use every effort to secure the nursing of the child upon the part of the mother.

Among the laboring classes the mother is usually able to suckle her young. It is among the upper ten thousand that we find the "poor milkers."

Seventy-five per cent. of my private practice is among the better social class, and in justice to womanhood and maternal instinct, I will say that 90 per cent. of the inability to properly nurse their offspring is due to physical weakness, and not moral turpitude upon the part of the mother.

I am inclined to think, however, that the profession has not been sufficiently alive to the fact that by proper effort, moral, hygienic and medical, the natural nourishment could more frequently be secured.

When it comes to the recommending of a wet-nurse, many things are to be considered. First of all, can our patients afford the cost?

Then, again, wet-nurses are subject to diseases, such as syphilis, etc., that do not affect cows and goats.

In addition, the wet nurse may be accessible, physically healthy, but so constituted mentally as to be an objectionable member of our family, or her moral character may be such as to make her more objectionable than a leper.

The best way to determine this question is to bring it home to one's self. I recall an experience in my own family—a danger which my little daughter of seven would have been exposed to, by contact with a moral leper, recommended to us as a healthy wet-nurse for our infant boy. Better far for the latter to have been wafted to the angels than for our first born to have breathed the same air for a day with the moral monster in the shape of a wet-nurse.

For practical purposes the suggestion furnished us by our grandmothers' empirical practice in years gone by (the boiling of the milk in digestive disturbance), is sufficient.

I prefer the plan favored by Rotch, in Keating's "Cyclopædia," that of putting the milk in convenient-sized bottles and steaming it for twenty minutes. But whether the milk be steamed or boiled we accomplish the destruction of all putrefactive bacteria and disease germs, as well as the tyrotoxicon and other ptomaines produced by them.

A temperature of 180° F. is sufficient to accomplish this, and inasmuch as steaming at this temperature does not affect the taste, or the accomplishment of the coagulation of an amount of albumen and the throwing to the surface of a certain amount of the fat in the form of a decided scum, as boiling it does, it is preferable.

After steaming it, the receptacle should be hermetically sealed, and the "Mason fruit jar" for preserving purposes is an admirable convenience for this purpose. The particular place where the milk is kept is then not so important, though the ice chest, refrigerator, or cellar, country well, or spring house, should be scrupulously guarded from dirt, and be well ventilated.

Many conditions arise where we need the help of artificial digestion, and we lean not upon a broken reed when we call it into service.

The profession is under great obligations to organized capital and the various manufacturers who have concentrated their efforts upon artificial foods for infants. Many cases arise where these so called commercial foods are of great value to us.

Babies are like adults in that each is a law unto itself. What is meat for one is poison for another.

Among artificial foods, Mellin's has often served me well, as also has Carnrick's.

Many cases come to us to which no form of milk can be given. With such I have found Bush's bovinine of great value.

I have no patience with the dilettanteism and the Miss-Nancy-ism which would preclude a physician prescribing or specifying a reliable manufacturer's product, whether it be a drug or a food.

The second topic presented in this session, "the intestinal diseases of children," would, I think, not require consideration, save in a few rare instances, if the feeding of the child were properly accomplished.

In other words, I think the proper attention to the first duty would prevent the intestinal disturbances.

If the latter is an accomplished fact, if the riot in the alimentary canal be well under way, we must ignore the past regime with its opiates and astringents, and administer small doses of the mild chloride ($\frac{1}{20}$ gr.), or infinitesimal doses of the bichloride ($\frac{1}{100}$ gr.) and other germicide and antifermentative remedies, but first and foremost, correct the diet. At the same time, if we are in the midst of the heated term we must guard our little patients against excessive heat. To this end cooling baths at proper intervals are all important. These have a wonderfully beneficial effect upon the nervous system which is greatly disturbed.

Over-feeding is frequent at all times, but specially so in hot weather (when the food supply should in reality be somewhat diminished), owing to the ever present thirst.

Plenty of cool, pure water (sterilized by boiling and placing in the sealed "Mason jar" and kept in the ice chest, and not polluted by the placing of ice in it) should be given freely to

the babes of all ages; their thirst will then be abated and less food will be taken.

Another important point which should not be overlooked is the danger of "taking cold" even in hot weather. Extreme and pronounced currents of air should be avoided. A great protection to the digestive apparatus of the little one is a flannel bandage over the abdomen, which should be worn till the child is at least five years old, and good rather than harm would result from its use throughout life.

Cholera infantum. This last in the trio of subjects before us follows in regular sequence, and in the majority of instances would "die a borning" if the two subjects which precede it were properly handled. In other words, in my judgment cholera infantum, like cholera, or, more properly speaking, cholera morbus in the adult, would never occur if the feeding problem were properly solved, or in case of error there, if the resulting intestinal war were suppressed before it reached the culminating point.—*Dietetic Gazette*, July, 1889.

Nitroglycerin in Emergencies.—The value of nitroglycerin in the treatment of a variety of disorders characterized by spasm in the arterioles, has been for some time fully recognized; but it is only within comparatively recent times that it has been used as a stimulant in conditions of anæmia within the brain, or, in general, as an emergency stimulant. Recently, however, more attention has been paid to this function of nitroglycerin, and it has been recommended as a substitute for alcohol, and also for nitrite of amyl in resuscitating persons overcome with chloroform or ether.

In an interesting article in two recent numbers of the Lancet, Dr. Joseph Burroughs, of Ontario County, N. Y., has called attention to this important matter. The advantage in the use of nitroglycerin which he points out are, that it is cheap, convenient to carry and administer, small in dose, comparatively tasteless, and prompt and powerful in action.

Druggists usually keep it in stock in a ten per cent. solution, which strength is said to be non-explosive. From this solution a one per cent. solution is prepared, at a cost of about eight cents an ounce. The dose is one drop of of a one per cent. solution. This may be taken in water into the stomach, the physician dropping ten drops into a tumbler, and adding ten teaspoonfuls of water, one teaspoonful now representing one drop of the remedy. If there is need of great haste, or if the patient cannot swallow from being unconscious, one drop can be placed within the lower lip or upon the tongue. The drug may be given hypodermically; but so rapid is its absorption through the mucous membrane of the mouth that, unless the syringe should happen to be filled and ready, not much time would be gained by the use. The usual dose is one drop, and although one or two cases have been reported, in which a dose of this size has produced disquieting symptoms, this is the quantity which may be given with propriety. Even larger doses—up to three or four drops are sometimes needed to produce a full physiological effect. The duration of the effect of the drug also varies. Usually the effect lasts three or four hours, but in some cases the effect ceases in twenty or thirty minutes.

Dropped on the tongue, the effect of nitroglycerin is very rapid. By the stomach, unless greatly diluted, the effect is apparent in a few minutes, the pulse being increased in rapidity from ten to twenty beats, and becoming full and regular. In a few cases there is a slight headache, lasting for a few minutes. After larger doses the face becomes flushed, severe headache is experienced, accompanied with a feeling of fullness, singing in the ears, flashes before the eyes, and all the symptoms of an increased supply of blood to the brain.

On account of this effect on the cerebral circulation, care should be taken in administering nitroglycerin to the aged, as the sudden expansion of the cerebral vessels might cause a rupture of their weakened calcareous walls.

In case of alarm caused by manifestations of a poisonous effect after the use of nitroglycerin, the antidotes are strychnine, ergot, and belladonna. These agents should be given hypodermically in case of poisoning, as they diffuse much more slowly than nitroglycerin. Everything should be done to save the brain from injury by engorgement of the blood-vessels. In one case Dr. Burroughs gave instant relief from the agonizing headache by having the patient place his clasped hands behind his neck and press the thumbs against the throbbing carotid arteries.

In conclusion, it may be said that nitroglycerin (or trinitrin, or glonoin—names less familiar to the laity) is a drug capable of doing excellent services in cases of heart failure, and that it must be used with prudence, but without timidity. It is a drug which ought to be on hand at every administration of chloroform; for, in cases of sudden failure of the pulse from chloroform narcosis, nothing—except, perhaps, suspension by the heels—will act so promptly as nitroglycerin, in restoring consciousness to, and averting danger from the patient.—*Med. and Surg. Reporter.*

A Case of Leprosy Apparently Arrested.—As this subject is attracting attention at the present time, I think the further history of a case of leprosy, in which the disease appears to be arrested, may be of interest. In the Journal of June 28th, 1879, I published the following account of a man suffering from this disease:

"T. M. was born, and spent his youth, in England. After residing twenty-four years in Jamaica, he returned to London in November, 1887. He noticed the first symptoms of his disease in May, 1878, when large patches of discoloration appeared on his legs, followed by similar spots on the face and arms. A tonic treatment was first employed, and in September, 1878, *chaulmoogra* oil in small doses was given, which was increased to 20 minims three times daily. This he continued to take till March 10th, 1879, when I first saw him. He stated that his condition improved when he commenced to take the oil, but the complaint recurred in a more marked degree.

"On March 10th, 1879, he presented the following appearance: He was hale and well-nourished. There were dusky-red, raised patches, two or three inches in diameter, scattered over the face, neck, body, and limbs, with characteristic leonine expression of countenance and thickening of the ears and of

the tissues in the positions occupied by the spots. A superficial ulcer existed on the outside of the left leg; and one spot on the right thigh, and the inside of the feet, from the great toes to the heels, were anæsthetic.

"I directed him to take *chaulmoogra* oil in drachm doses thrice daily. The only inconvenience he experienced was slight constipation, which an occasional mild purgative removed. He has continued the same treatment. The ulcer on the leg rapidly healed. When I saw him a week ago the spots had faded in color and lost some of their thickening, while some had disappeared, and the anæsthesia was less marked, and his general health had improved."

I have kept this man under observation at the Hospital for Diseases of the Skin, Blackfriars, ever since. He continued to take the oil in diminishing doses, and to apply it freely to his skin till within the last year or so. His symptoms gradually became less marked, the areas of anæsthesia contracting and the discoloration of the skin slowly fading. He has experienced no recurrence. When I last saw him, towards the end of 1888, there was no evidence of his having had the disease except a slight brownish staining of the skin of the backs of the hands, and some loss of sensation about parts of his legs and feet. His general health was excellent. He has resided all this time in the suburbs of London. I saw his wife and daughter, and they are neither of them affected with the disease.

I have tried the same treatment in other cases of leprosy without success, but no other patient of mine has been able to take such large doses of the oil. This man took it in 90 minim doses at one time.

This case seems to me interesting on several grounds: (1) as showing that the disease may seemingly be arrested in an early stage, the patient living in London; (2) that the disease did not mend till he took full doses of chaulmoogra oil; (3) that, like Mr. Hutchinson's case, in which the progress of the disease apparently ceased, the complaint was consequent on residence in Jamaica.

The evidence has long appeared to me to point to leprosy being primarily dependent upon an organism which is associated with decomposing organic substances, such as fish or flesh, and introduced into the body with the food.—Windham Cottle, A.M., M.D. Oxon., F. R. C. S. Eng., in the *British Medical Journal*, July 6, 1889.

Caffeine in Migraine.—Dr. E. J. Overend, of Oakland, writes in the Pacific Medical Journal regarding his personal experience with caffeine in sick-headache. Having himself been a victim for many years, he has had ample opportunity to test the comparative values of many drugs, from the study of which he rises with the conviction that caffeine comes as near being a specific in migraine as does quinine in intermittent fever. He is even inclined to rate its claims to specificity beyond those of the latter, but like that drug, its prophylactic power outranks its curative value. His practice is to anticipate the attack by doses of two to five grains hourly, dispensed in capsules: this seldom fails to abort the attack if taken sufficiently early, or if not so taken, a marked amelioration of the symptoms results. He counsels his patients not to procrastinate, as they are prone to do, but to begin the dosage promptly as soon as the well-recognized prodromes appear. When capsules are objectionable to the patient and a solution is preferred, the salicylate of sodium should be combined with the citrate of caffeine, his belief being that the former salt not only renders the latter more stable, but also acts as as a synergist. If recently reported experiments are correct, caffeine has another noteworthy advantage in that it does not enslave as do some of the narcotic remedies that are used in this affection. He has not found it necessary to increase the dose progressively, as is commonly the case with the habit-forming drugs.

Of the various proprietary preparations containing caffeine he has no commendatory evidence to give; they contain too little caffeine and too many unnecessary adjuncts, and of the effervescent compounds he remarks that they seem to contain more "fiz" than caffeine, and give him the impression that cheapness plays a part in their construction. Dr. Overend's paper is written in a scholarly and sympathetic vein, and we recommend it to the many medical men who are victims to migraine, as a useful bit of post-graduate instruction.—*Phila. Med. News.*

The Treatment of the Various Forms of Rheumatism.—After reviewing the previous treatment of acute rheumatism during the past twenty-five years, Dr. W. N. M'Coll considers the value of the present routine treatment by salicylic acid and its allies or derivatives under the following headings: 1. In relieving pain and lessening fever in acute rheumatism the salicylic treatment is undoubtedly the most effective we know of. 2. The salicylates do not present the rare complications of hyperpyrexia, and are absolutely useless in its treatment. 3. It is doubtful if they prevent endocardial or pericardial troubles, the percentage remaining about the same (50 per cent.) since the salicylic treatment as before. They seem to have no influence in curing these troubles when they do occur. 4. There is no proof that the salicylates prevent relapse. 5. It is not proved that the salicylates lessen the duration of the disease, or that they prevent anæmia. With regard to the particular form of the remedy, most writers recommend (and Dr. M'Coll agrees with them) salicylate of soda in twenty-grain doses, at first every hour for three or four hours according to circumstances. It should be continued in diminishing doses for at least eight or ten days after all pain and pyrexia have gone, and in most cases should be followed by iron. Salicylic acid, salicin and salol might be tried in exceptional cases where the soda salt was not well borne. In young children antipyrin might be substituted with advantage. In convalescence, Sir A. Garrod's alkaline mixture, followed by iron, is advised; and, if any joint remained stiff or swollen, blistering or painting with iodine is useful.—Report of Clinical Society of Manchester, *London Lancet.*

The Medical Age.

Vol. VII. DETROIT, AUG. 10, 1889. No. 15.

Original Articles.

A NEW DIURETIC FOR HEART-DISEASE.*

BY PROFESSOR GERMAIN SEE, PARIS, FRANCE.

Among the diuretics, the most infallible is milk, which, of itself constitutes at the same time a sufficient aliment. As a food and as a medicine, it has been for many years the sheet-anchor in the therapeutics of diseases of the stomach and heart.

It does marvels for gastric patients, provided the malady be characterized by excess of the hydrochloric acid secretion; these patients belong to the category which I have characterized as *hyperchlorhydric*, and this form of dyspepsia is very frequent. The milk treatment, however, fails in patients where the natural acid is lacking, as in cancer of the stomach (the *anachlorhydric*); also in the *hypochlorhydric* where there is simple deficiency of hydrochloric acid (atonic gastrectasis, catarrh of the stomach).

Milk diet was prescribed half a century ago by CHRETIEN, of Montpellier; by SERRES, of Alais, who added onions; later, by PECHOLIER, also of Montpellier; all of whom vaunted its effects in dropsies in general. Still more recently it has been assigned the first place in the treatment of dropsies of renal origin, and of asystolic cardiac diseases with venous stases and œdematous infiltrations.

Milk administered in small and frequently repeated quantities—to the extent of three or four quarts a day—may render the greatest service in cardiac dropsies, especially when patients have a normal or "hyperchlorhydric" stomach; there are several reasons for this singular usefulness of milk in these two great classes of affections, dyspeptic and cardiac. The first is this: Milk is a complete aliment, containing casein, sugar and fat, which are indispensable for the maintenance of the forces and the reparation of the corporeal losses; but it is evidently complete only when the proportion of the three chemical principles is in perfect accord with the physiological need, namely: 120 grammes (4 ounces) of azotized principles, 100 grammes (3 ounces, $2\frac{1}{2}$ drachms) of fat, and 250 grammes (about 8 ounces) of hydro-carbons.

Now to meet this want, this must be the quality of the milk used as food. Every quart of cow's milk contains, or should contain, besides the water, an average of 36 grammes of casein, 29 of albumen, 40 of butter, and from 50 to 55 of sugar of milk, without reckoning the saline matters, composed principally of sodium chloride and phosphate of potassium, the latter being represented by $1\frac{1}{2}$ grammes per litre. If it were only a matter of giving the equivalent of the 100 necessary grammes of fat, two quarts and a half would be all that would be needed for the day's rations. To supply the 120 grammes of albuminous principles, three and a half quarts would be needed. To furnish the 250 grammes of hydrates of carbon, five quarts are necessary. You see then why it is that a healthy individual who takes but three quarts of milk a day for his nourishment, soon begins to lose a considerable quantity of nitrogenous element at the expense of his body, though he may not lose in fat; the daily quantity of three quarts fails to cover the deficiency in azotized principles, for four quarts are needed to make good the waste. It is for this reason also that the muscular forces diminish. The waste of nitrogen in an individual who performs physical toil is such that at the end of a week the milk eater is menaced in his general health. If in the state of *rest*, the contingent of casein-albumen is sufficient, it ceases to be so when the molecular changes are augmented for the production of force. Hence, the milk diet is only suitable for patients who take but little exercise and lose but little heat, and cardiac patients are generally in this condition.

The second reason for the utility of milk as an aliment, is that in general it is easily digested. It, in fact, immediately coagulates in the stomach; the casein peptonizes with great facility; the butter is divided into an infinite number of molecules, and emulsified by the pancreatic juice and bile.

But it often happens that cardiac patients, like many healthy persons, take a dislike to this kind of food, or do not really digest it by reason of the *massive* coagulation of the milk in the stomach; hence various correctives have been sought.

Thus far, the most of these have failed. Of late years, physiologists have inquired into the cause of this indigestibility, which has been attributed to diminution or absence of the ferment of milk (*lab*); numerous researches have

* Furnished for this journal by the Professor.

proved to me (as to others) that this is the case. What is to be done? Lime water and other lime preparations have been proposed; I have long employed the biphosphite, but the subject is still imperfectly understood. We know only that when the ferment is lacking, the consequences are less serious when the hydrochloric acid is at the normal figure: in this case, the acid may supply the place of or aid the natural ferment. If the acid is in excess, it may become attenuated and neutralized to a certain extent—by the caseous albuminates of the milk which are alkaline; this we have often noted in cardiac patients with excess of hydrochloric secretion.

It is, however, unnecessary that the hydrochloric acid should be in excess in order to digest the milk; the casein demands in reality (and this is one of its great advantages) much less of acid for its peptonization than fibrin and albumen. We may, in fact, establish a descending series among the albuminates; the albumen of eggs, for instance demands the the highest percentage of acidity; then the musculine and the fibrine of the blood require a proportion somewhat less, and lastly, we have casein, which needs still less acid for its peptonization. Any hyperacidity is, however, likely to be corrected as the milk diet is concontinued.

THE DIURETIC ACTION OF MILK.

Another property which in cardiac affections exceeds all the advantages of milk, is its diuretic action. When you raise the proportion of milk ingested to the necessary physiological figure, putting the patient on an exclusive milk diet, you arrive at a total of three quarts, at least, and then commences the diuretic action.

The polyuria much exceeds that which might be expected from the water ingested, and this polyuria entails a real disadvantage along with the unquestioned benefit which it brings, for it gives rise to a veritable saccharine diabetes. Now, if you administer to a patient 200 grammes of sugar of milk, you establish a real glycosuria, and just this quantity of lactose is contained in four quarts of milk.

But before all, we ought to know to what element the milk owes this diuretic property which everybody has recognized from time immemorial, but which nobody has ever sought after or even thought of finding by analysis.

IN WHAT ELEMENT RESIDES THE DIURETIC POWER OF MILK?

After having passed in review the divers constituents of milk, to-wit, the water, the casein, the butter, the sugar of milk, the saline matters: after having examined them successively from the point of view of their possible action on the kidneys, I have been led to the conviction that the water is eliminated more or less completely in proportion to the quantity ingested; that the albumen does not pass out by the epithelia of the kidneys unless the latter are altered or unless the albumen is in some way transformed; and that the fatty matters in no manner affect the secretory substance of the kidneys. What remains, then, to provoke urination beyond the normal—in other words, to cause a hyper-secretion? Nothing remains but the sugar of milk, or the mineral substances, or possibly a combination of the two principles.

Cow's milk, according to GAUTIER, who gives these figures as an average in accordance with the data furnished by the principal chemists, contains:

Water	85.00
Casein	3.60
Albumen	2.90
Butter	4.00
Sugar of milk	4.00
Salts	0.50

The ashes of 100 parts of cow's milk contain, according to GORUP-BEDANEZ:

Potash	28.09
Soda	6.68
Lime, magnesia, and iron	20.01
Phosphoric acid	30.15
Chloride of sodium	15.06

Hence, according to all the analyses, it is potassa that predominates as base, then as saits, the phosphate of potash and the chloride of sodium.

Potassa.—A diuretic action has always been attributed to potassa, which has been considered as more diuretic than soda, and this action has been explained by the great osmotic power which it possesses. Taking a hint from this physiological fact, I once composed a sort of artificial milk containing: (1) 50 grammes of sugar of milk per litre of water; (2) 1 to 2 grammes of acetate of potash. But as a result of repeated trials, I have been convinced that the diuretic property belongs chiefly, if not all together, to the sugar of milk, for on omitting the salt of potash and prescribing a ptisan of sugar of milk alone, I have obtained diuretic effects which were most marvelous, the diuresis exceeding by far that which is caused by an equivalent quantity of milk.

SUGAR OF MILK, OR LACTOSE—CHEMISTRY AND PHYSIOLOGY.

Sugar of milk (whose formula is C_{12}, H_{22} O_{11} plus H_2O) is found in the milk of all mammalia and apart from this particular sugar, milk does not contain any other sugar or hydro carbon. This sugar exists in the milk of the ass in the proportion of six per cent., in woman's milk, five per cent; the proportion in the milk of the cow or the goat is from 4.8 to 5 per cent. It is obtained by adding to cow's milk a little rennet which precipitates the casein, and mod

of the butter. The filtered liquid, treated by dilute acetic acid, heated and freed from albumen, is evaporated to crystallization. This crystallizable substance is soluble in six parts of cold and two parts of warm water, is little soluble in alcohol, has a less sweetish taste than cane sugar. Dissolved in warm water, sugar of milk is dextrogyrous. Heated with alkalies it becomes brown, like grape sugar (Moore's test); it reduces the oxide of copper (Trommer's test), also the oxide of bismuth (Böttger's test), and its power of reduction is one and a half times greater than that of grape sugar. When left for four days in contact with a five per cent. solution of soda at a temperature of from 35° to 40° C. (the proportions are 10 grammes of lactose to 500 grammes of solution of soda), lactic acid is formed, while cane sugar, mannite, and inosite, placed in similar conditions, remain intact.

Physiology, Combustion and Elimination.—Sugar of milk (which, according to recent experiments, seems to be formed chiefly from albuminous substances, and is produced even when an exclusively flesh diet is used), undergoes in the economy, if taken in considerable quantity, a complete destruction, being burned to form carbonic acid and water; hence it does not appear in the urine under the form of sugar of milk, or any other kind of sugar. If you inject sugar of milk in the blood of animals, or introduce it into the intestine, it undergoes an oxidation, but if the quantity injected is in sufficiently large quantity to accumulated in the blood, a part escapes destruction, exactly as takes place with grape sugar, and passes out unchanged in the urine.

As a general rule, sugar of milk when ingested as an article of diet, and as a constituent of milk, is not eliminated unchanged; it serves as an aliment, like the other carbohydrates; starch, dextrine, cane sugar, glucose, and like them it spares the albuminates and fats of the organism.

To demonstrate the elimination of unchanged sugar of milk by the urine, the following conditions should be fulfilled. 1, a solution in the urine should present a right handed polarization, and the deviation to the right should increase after the action under heat of dilute sulphuric acid; 2, this solution, after being boiled with sulphuric acid, and after neutralization of the acid by carbonate of lime, should undergo the alcoholic fermentation under the influence of pure yeast. The quantity of sugar may be determined by FEHLINGS solution or by *polarization*.

SUGAR OF MILK IS THE MOST SURE AND THE MOST POWERFUL OF DIURETICS.

We already know that sugar of milk in certain conditions and in certain doses is eliminated by the kidneys. We shall endeavor now to ascertain by what process it acts on the kidneys, and how it becomes diuretic in the highest degree.

Elective Action on the Cells of the Kidney.—The kidneys, in secreting the urine, have for their principal function to maintain in a constant state the composition of the blood, to remove from the blood everything which does not belong to its normal constitution, that is to say, every abnormal element, and besides, every normal element which exceeds in quantity the physiological figure. This function belongs to the epithelial cells of the uriniferous tubes, and cells of the walls of the capillary vessels; in the glomeruli, both constitute a sort of special organism laboring each independently and in concert. It is easy to prove this: inject carmine in the blood, and it will be eliminated by the Malpighian capsule, that is to say, by the cells of the capillaries; indigo and the coloring matters of the bile, on the contrary, pass out by the convoluted tubes and the loops of Heule. In the bird, the uric acid, which here replaces urea, is never found except in the epithelia of the tubuli contorti; it is thence swept along to the renal pelvis by the water secreted in the Malpighian capsules. Thus you see, that there is here a specialization of function for each group of cells,—a sort of attractive and finally eliminative secretion.

All these cells are destined to rid the blood of principles foreign to the economy, or which have become so by their excess, and this multiple, incessant process, goes on with all substances, whatever may be their degree of solubility: and what is more striking still, whatever may be their endosmotic power or their faculty of diffusion. These renal cells expel whatever is without value, whether crystalloids or colloids, soluble or insoluble, alkaloids or acids.

Thus, sugar and urea are both readily soluble in water and readily diffusible; they both circulate constantly with the blood through the capillaries of the kidneys. The sugar, an aliment of the first order, is retained in the blood, the urea a final product of oxidation is excreted; this *end* is clear, but the *mechanism* is not yet understood. We have, in fact, no mechanical or physical theory to fall back upon; what is certain is that the sugar itself, whenever it exceeds the normal, is eliminated in the urine. As for the albuminates, they remain in the blood as long as the epithelia of the kidneys are not altered by a pathological process, or disturbed in their nutrition by a stasis in the circulation, or an insufficient supply of oxygen. Here, again, the integrity of the epithelia opposes the out-passage of the albuminates of the blood plasma, and this without the colloid state of these albuminates, for the moment an albuminous substance foreign to the natural constitution of the blood is introduced into the circulation, the albumen

of egg for instance, or the serum of other animals, that moment the albuminous substance appears in the urine.

EXPERIMENTS ON A HUMAN BEING WHO TAKES AN EXCESS OF SUGAR.

In the recent discussion at the Academy (May 20, 1889) on diabetes, I proved from the experiments of Worm-Muller that when an individual in perfect health ingests in the twenty-four hours two hundred grammes of cane or milk sugar, he becomes both diabetic and polyuric. The quantity of urine augments, and sugar is voided with it, in the form of glucose; both cane sugar and milk sugar are eliminated in this form.

In administering such quantities of saccharine matters. You have then to fear the transformation of a simple polyuria, and I cannot say that the abuse of milk is not capable of a like effect—when three quarts are drank or more. You must remember, moreover, that these three quarts of milk produce two quarts of urine at least, and sometimes three quarts; this represents a loss of $15 \times 3 = 45$ grammes of urea, and we have the commencement of an azotized denutrition. But happily, in remaining within the limits of 100 grammes of sugar of milk (*i. e.* by drinking only two quarts of milk a day), you obtain all the advantages of the diuresis without any of the disadvantages, that is to say, without the production of glycosuria.

THERAPEUTICS.

After having eliminated from milk all the principles supposed to be diuretic; first the water, which when injected all at once into the veins of an animal diminishes rather than increases the urine—water which in man forces the formation and secretion of urea—after having excluded the chloride of sodium where diuretic power is doubtful, then the salts of potash which appear to act by augmentation of the intra-vascular pressure, we have scarcely anything left but the lactose. In the quantity of 100 grammes dissolved in two quarts of water, no other drinks whatever being taken, we obtain a considerable polyuria in all our patients indiscriminately,—in all our cardiac patients, whatever may be the lesion, whether this be a degeneration of the nijo corelium, an alteration of the valves, a lesion of endo-cardiac origin, or an arterio-sclerosis. The diuresis is certain, and is much more marked than when an equivalent quantity (about two quarts) of pure milk is taken.

I sum up the history of 25 patients, 13 of whom belong to the city practice and 12 to the hospital, and in whom the urine was collected and examined with the greatest care. To all these patients, sugar of milk was given in the dose of a hundred grammes a day dissolved in two quarts of water.

Three of these were cases of aortic insufficiency with considerable dropsy and marked dyspnœa.

Four more, cases of mitral insufficiency which had attained the stage where failure of compensation is marked.

Three of them were cases of mitral stenosis, with moderate dyspnœa and some infiltration of the lower extremities.

Three were cases of fatty heart.

Five were cases of muscular degeneration of the heart—asystolia.

Two were cases of Basedow's disease, with mitral lesion and marked venous stasis.

Three were cases of coronary arterio-sclerosis, with probable degeneration of the myocardium and dyspnœa, but without dropsy.

One was a case of *brachycardia** with arterio-sclerosis.

One was a case of angina pectoris, terminating in death after a month of treatment.

When we began treatment, all these 25 patients were passing quantities of urine not exceeding 300 to 500 grammes a day (10 to 20 ounces); in the course of 24 to 45 hours we had attained a real urinary flux, the minimum quantity passed in any one case being 2500 grammes, a fair average being 3200 to 3500 grammes, and in two cases there were voided during the space of from two to four days from 4000 to 4500 grammes—this fell back to 2500 grammes, and continued at this figure during the further administration of the lactose, and when the medicine was discontinued the secretion became again only 300 to 500 grammes, as at first.

In all the patients affected with dropsy, in proportion as the diuresis increased the infiltration diminished; and almost all the œdematous swellings disappeared altogether after a series of treatments lasting from six to eight days, in some instances the treatment being repeated for a week or so after being suspended for a few days.

I have never seen any untoward results except twice, when the lactose produced diarrhœa. The treatment failed only in cardiopathies complicated with intense albuminuria.

COMPARISON WITH OTHER DIURETICS.

The diuretics, as I have endeavored to show in my memoir on Cardiac Medicaments, act either by raising the blood pressure in general (that of the kidneys being perhaps included), or in an osmotic way, by favoring the diffusion of blood-serum through the renal vessels and ducts (this is doubtful), or by acting on the epithelia of the canaliculi.

* That is, slowly acting heart with feeble circulation and slow pulse.

It is from the latter point of view that we take our stand in endeavoring to explain the action of sugar of milk. We cannot, in fact, appeal in explanation to any osmotic power which the lactose possesses; endosmosis, as well as exosmosis, which the discovery of DUTROCHET and the researches of GRAHAM have clearly established, takes place in dead membranes, and does not apply to living tissues; the distinction admitted between crystalloid and colloid substances does not find here its application; so that we are compelled to fall back upon *a certain vital influence* of the membranes, or rather of the epithelial cells, and on the selection exercised by these living cells on the liquids which bathe them and which come to them from the plasma or blood serum. The diuretic action seems, then, to belong to a special property inherent in the epithelial cells.

But before arriving at a deduction so rigorous, it is important to know what is the influence exercised by the *blood pressure* on diuresis. We know the structure of the Malpighian glomerules, the dilatation of the arteries, and their sudden breaking up into a capillary system, then the reunion of the capillaries in an efferent vessel which is narrower than the entering vessel; we have here an arrangement which must slow the course of the blood and raise the pressure. We do not, however, yet know what is the influence of this vascular apparatus on the urinary secretion, nor do we know what is the effect of the pressure on the quality and the quantity of the transudation.

In this state of uncertainty respecting the relations of this secretion with the blood pressure, it is not easy to determine the mechanism of the innervation of the kidney.

To explain the hyper-activity of the renal cells, the intervention of the nervous system does not seem necessary; we know only that this hyper-activity depends on the quantity of materials to be removed from the blood, and on the quantity of the blood which traverses the kidneys in a given time. Everything that enlarges the diameter of the vessels of the kidney, and increases the quickness of the blood flow (as, for instance, the *section of the splanchnics* and the *excitation of the spinal cord*), raises the quantity of urine secreted in a unit of time. Every thing which narrows the caliber of the vessels and diminishes the rapidity of the blood current, to wit, the excitation of the splanchnic, the mechanical constriction of the renal arteries, the section of the cervical cord, also diminishes the quantity of urine. As for any direct action of the blood pressure in the vessels of the kidney on the urinary secretion, this cannot for an instant be admitted; it is the general blood pressure alone which can exercise a secretory action. But in the present case, *i. e.*, in explaining the mechanism of polyuria by sugar of milk, it has been demonstrated in animals that the diuresis takes place without increase of pressure in the vascular system. In man, the pulse, moreover, does not undergo any modification whatever.

Now is respect to digitalis and caffeine, these two substances seem to act, the one by the high blood pressure which it occasions, the other by the general vaso-constriction which it causes, and not by a direct action on the heart. With regard to sugar of milk, the case is different. In the animal in which sugar has been injected, there is no excess of blood pressure, as experimental physiologists have proved. Some interesting experiments of CHARLES RICHET and ROBERT MOUTARD MARTIN, undertaken and published ten years ago "On the Action of Sugar in General," have taught us that the secretion takes place without the intervention of pressure; under the influence of an intra-venous injection of glucose solution (30 c. c.), a polyuria was established and rose from 1 to 8 grammes per minute, and the urine remained normal. The injection of sugar of milk produced the same effects, and the polyuria rose from 1 to 40. It results from this that by reason of the exaggerated renal secretion, there is a veritable *dehydration* of the blood; this is precisely what we have witnessed in the human subject affected with cardiac dropsy. But when once this dehydration is obtained, the sugar loses its effect, and the urination no longer goes on in excess.

In all these cases the blood pressure exercises only a secondary affect; any increase of the pressure tends, as a rule, to force a more abundant secretion, and *vice versa*, but this only holds true if the blood remains normal; when that fluid contains an excess of sugar, diuresis comes on despite very low pressure. This is a sufficient proof of my contention as to the elective action of sugar on the epithelia, as to the independence of these cells of the blood pressure, and their dependence on the composition, elementary or accidental, of the blood.

The introduction of sugar of milk in the blood, or its ingestion by mouth, determines infallibly this alteration of the composition of the blood, and consequently polyuria.

One of the reasons which may be alleged in favor of diuretic action by renal selection, and against exosmosis, and even against the influence of pressure on diuresis of milk origin, is that we do not find sugar of milk in the urine of healthy individuals who do not exceed the quantity of 100 grammes of milk sugar per day.

The lactose does not pass through the secretory cells, but it excites them to work; if the sugar of milk is transmitted by exosmosis, we ought to find it in the urine, and yet it is not there, although is provokes diuresis. What becomes of it in the economy? It can only be

burned, in serving as a ternary aliment,—and then it naturally forms carbonic acid and water.

It might be supposed that instead of combining, it was transformed into an intermediate product, into lactic acid, for example, or an alkaline lactate which would pass out in the urine: now the most minute researches have been made in my clinical laboratory, and we have found no traces of these substances in the urine where lactose has been given therapeutically according to my method. Hence, we may conclude that the sugar of milk given within the limits indicated, acts the part of a true diuretic, a diuretic which may be called *functional*.

There is a pathological proof of this selective action of lactose. In my first observations, I was struck with the inequality of the diuretic action of lactose in diseases of the same kind.

Most patients experience the benefits of diuresis by the ingestion of milk sugar, but from time to time I met with exceptions, of which I soon found the explanation. I caused my assistants to examine with care the urine for albumen: as long as the kidneys eliminated normal urine, diuresis was not once absent; it was the same when the albumen did not exceed 20 to 30 centigrammes per litre of urine: but when the albumen was increased in quantity and attained the figure of a gramme per litre, the lactose no longer acted; this was due, evidently, to the impermeability of the kidney by reason of alterations more grave than the simple venous stases which so rarely are lacking in the cardio-pathies.

Thus, in Bright's disease, properly so-called, I rarely observed an effective diuresis, *i. e.*, a diuresis sufficient to remove the dropsical effusions; in most cases the epithelial cells of the renal tubes were destroyed, the kidney had become insufficient; and could no longer produce a hyper-secretion. If some portions of one or the other kidney have escaped destruction, the diuresis may still manifest itself, but without duration, and without intensity.

From this follows an important diagnostic deduction. If you have a diuresis which is incomplete or nil, it seems to me that you are authorized to diagnose an extensive lesion compromising the totality of the secreting structure of the kidneys. The fact of the existence of diuresis enables us to attribute to the kidneys a certain degree of anatomical, and consequently functional, integrity.

RESUMÉ AND CONCLUSIONS.

1. Lactose constitutes the most powerful diuretic, and at the same time the most inoffensive. It is the only principle which gives to milk properties of this kind: the other principles of milk, the water, the casein, the fat, the salts, have no manifest or useful action on the kidneys; the chloride of sodium adds nothing to the polyuria induced by milk, and even the salts of potash have a very limited part.

Milk taken in the quantity of more than two quarts, produces diuresis indeed, but it determines at the same time (supposing, for instance, four quarts to be ingested, each of which contains 50 grammes of sugar of milk), an evident glycosuria—a temporary diabetes—attended with the elimination of normal sugar; it entails at the same time a considerable loss of urea, so that, in the long run, the milk treatment constitutes *a regimen of double denutrition;* by the normal sugar which is lost, and by the albuminates which are destroyed; it is an inanition attendant on a glucosuria and an azoturia.

The sugar of milk given medicinally enables us to overcome these evils; an enormous diuretic effect is obtained by the aid of 100 grammes of lactose, such as one is not sure of obtaining with four or five quarts of milk. With the lactose there is no glycosuria, for the sugar remains in the blood; there is no azoturia, for the albuminates do not leave the organism. If two quarts of the solution of lactose are equivalent to four quarts of milk, this goes to show that in the milk the lactose is combined with other ingredients which hinder its action; these are probably the casein and the fat.

2. The polyuria resulting from the internal use of 100 grammes of lactose, exceeds that of all other medicines. It rapidly attains the figure of two quarts and a half per day, and almost constantly rises to three quarts and a half, and even four quarts and a half, about the third day. From this moment it remains stationary, or falls to two quarts and a half for several days. During this time the dropsical effusions disappear with almost a certainty; the blood becomes *dehydrated*—this is why the diuresis is not as intense, or as complete, at a late stage as at the beginning of the treatment. The medicine can be stopped for several days and then resumed, if occasion requires, with generally the same happy effect as in the first instance.

3. *Effects on dropsies of cardiac and renal origin.*—We may affirm that sugar of milk acts with certainty in dropsies of cardiac origin, but doubtfully or not at all in dropsies of renal origin. In affections of the heart it fails only where the kidney is degenerated, and when the albuminuria reaches the figure of 60 to 90 centigrammes per litre of urine. As long as the quantity of albumen is minimum, the result is favorable, as we have reason to believe that there is then nothing but venous stasis in the kidneys.

4. We sometimes see the diuretic action of lactose interrupted by other causes than the alteration of the kidneys; there is occasionally

a diarrhœa which naturally diminishes the diuresis, or profuse sweats may produce the same effect.

The sugar of milk is in general perfectly well borne. It should be given from six to eight days; this will be sufficient to determine a real dehydration, and a sort of drying of the tissues. The usage of the medicine is then interrupted for a few days, to be resumed again. The insipidness of the sugar of milk solution may be corrected by the addition of a little brandy or peppermint water.

It is important in all cases to limit or even suppress all other drinks, including soups and broth, and especially milk, which is useless, often injurious by overloading the stomach and preventing other alimentation. Now in this respect, lactose presents an immense advantage: it enables the patient to eat anything he pleases, and the physician to prescribe the diet he thinks most necessary to sustain the forces of the patient.

5. As to the mode of action of lactose, I repeat there is no way of understanding the diuresis which it occasions but by *a selective and elective action on the secretory elements of the kidney.* It is a physiological and renal diuretic.

If we compare lactose with other diuretics, this is the result which we obtain:

Those which augment the blood pressure, the cardio vascular diuretics, to wit, digitalis, convallaria, strophanthus, etc., act much more feebly, less surely, less efficaciously, in dropsies than lactose.

A second group of diuretics, the only group well established to day, compreheuds the renal diuretics properly so-called: in this group are found calomel and especially caffeine. It makes part of a very curious chemical series, which begins with xanthine, includes theobromine which we are studying at this moment, and ends with caffeine. Now we are certain of these facts, namely: that caffeine and theobromine are both nephritic diuretics like lactose: that they are both independent of the vascular pressure, for you can excise the vaso-motor centres and destroy the nerves which go to the vessels without at all interrupting the diuresis produced by caffein: they have no tonic action on the heart as has been asserted recently, and in this they resemble lactose; but caffeine produces nervous and cerebral disturbances from which lactose is free.

6. We have, then, in lactose the diuretic remedy *par excellence*, for affections of the heart arrived at the period of broken compensation or asystolia: the true curative means for treating cardiac dropsies, always grave, often irremediable, even those which have resisted other diuretics. As asystolia includes as a part of its morbid complexus another element dangerous to life, namely dyspnœa, lactose, which like most diuretics is impotent against profound disturbances of the respiration, should be aided or supplemented by iodide of potassium, which, by both its ingredients, by its iodine and its potassium, is the true medicine of the heart and circulation lacking only a diuretic power. I advise you, then, in these obstinate cardiopathies with dropsy and dyspnœa, to associate the lactose with iodide of potassium.

INTESTINAL DISEASES OF CHILDREN DURING HOT WEATHER.*

BY PETER HOOPER, A. M., M. D., OF PHILADELPHIA.

The causes of intestinal diseases in hot weather are mainly heat, impure air, and improper food.

Heat alone is evidently not the sole cause, for relatively these diseases are more prevalent in the city than in the country; still heat is a potent factor, hence I will consider this first.

The local abstraction of heat from the bodies of children suffering from *entero-colitis* or *gastro-enteritis* I have always found to be productive of good. The use of cold water and cracked ice internally is also beneficial. Cold water compresses (or the ice bag) applied to the head will reduce fever, and whenever I have used it there has been an improvement in the diarrhœa also.

Since gastro-enteritis is chiefly a disease of hot weather, our object should be to lower the temperature, and this can be done by keeping large pieces of ice in the sick room.

The following case came under my care June 12th, 1887: H. S., aged eight months; when I was first called he had been sick for two weeks; and measles and gastro-enteritis was the history given. I found the little patient in almost incessant convulsions; with rapid breathing; the skin hot and dry; the pulse quick and jerking; the carotids strongly pulsating; the pupils contracted; the sphincters relaxed, and having very thin fæcal evacuations. The temperature in the axilla registered 103⅘ F. The treatment was the immediate use of the cold pack. Ice was rubbed down the spine, and a block of ice placed under the neck. In half and hour the temperature had fallen to 105° F., nothing being given internally, I directed that during my absence the same treatment be continued whenever there was any rise in the temperature. Chronic entero-colitis of several weeks duration followed. During this time I continued the use of ice and ice cold water externally; and internally, calomel, pepsin, bromides, bismuth, and quinine suppositories, were given whenever they were indicated.

* Read before the Newport meeting of the American Medical Association

The mother kept the child out of doors in the cool air and shade a great deal of the time. This she was able to do by going to the old family homestead which had large shady grounds and an unobstructed exposure a great distance in front of the house.

The principal infant foods were badly digested, and no improvement was made until cow's milk was given, peptonized at first and afterwards pure, being obtained fresh from a farm near by.

In October of the same year, while the child was still under treatment, hip-joint disease developed, which was cured by deep massage and inunctions of *lanolin*. *Chorea* next developed, and remains to this day. Excepting this disease, the child is healthy and well nourished. In this case the free use of ice and ice-water, both externally and internally, was always followed by reduction of fever and improvement of diarrhœa.

The internal use of cold water given freely is very often beneficial. The vomiting is often increased at first, but this does good by washing out the stomach. Afterwards a sedative effect is produced which is a valuable step gained, in that food and medicines are better borne. The use of cold drinks and cold applications is good in entero-colitis and gastro-enteritis. In entero-colitis the fæcal evacuations may be nearly uniform, or they may change in color at different times. They contain altered epithelium cells, partly digested casein and sometimes mucous, or mucous streaked with blood. Besides the free use of cold water or ice internally or externally, it is good to use enemata of tepid water, or medicated water, to wash out the lower bowel. The use of enemata are useful when the movements contain mucous with or without blood; by this means the color is washed out. Their benefit is limited, however, for the tepid or medicated clysters cannot go beyond the ileo-cœcal valve, and often the small intestines are the seat of most of the inflammation.

I have not enough experience with washing out the stomach to say much pro or con. I have known of death occurring while this treatment was being used. In the last stages, when collapse is present, I hardly think it admissible.

In cholera infantum, when the child has the characteristic stools, viz., an acid greenish yellow fluid containing lumps of undigested food and casein, and later on evacuations similar to the discharges of Asiatic cholera, absolute rest of body and abstinence from food for twelve or fourteen hours, are indicated. During this time allow plenty of cold water to drink, or a piece of ice to suck or swallow if the child is old enough.

Impure air is also one of the causes of intestinal diseases of children. The first three years of my practice in Philadelphia, I attended during the summer months a great many in one of the poorer sections of the city. The sanitary condition of the houses and neighborhood was deplorable. The water-closets were filled to overflowing; the streets were dirty; and decaying portions of vegetables were exposed to the heat of the sun. As a result of this impure air, the death rate was very high, and could only be lowered by getting the parents to take their sick children to some free sanitarium from day to day.

The use of improper food is another cause. Mother's milk is the proper food for children. It is, however, exceptional for a mother to be able to nurse a child the entire first year of its life, so that resort to other foods is wholly or in part a necessity. I have almost abandoned the use of milk foods. It has been my experience that children using them do not grow so strong, muscular, or so rapidly as they should. When the mother's milk fails, or when it is possible to nurse the child only in part, my preference is sterilized milk. Cow's milk, due to the handling it undergoes, is apt to disagree with children in hot weather, but when sterilized milk is employed, intestinal diseases are much less frequent. In some cases no dilution of the milk is necessary, as I have known many children fed on cow's milk from birth, and it agreed well with them when obtained fresh.

I attended one large family of children who are fed in this way, and none of them have ever suffered with intestinal disease. In some cases the addition of Mellin's food to the milk is an advantage.

Prophylaxis.—In intestinal diseases of children, prophylaxis is very important. Give the child plenty of cool fresh air, without exposure to the intense heat of the sun. Sunshine in moderation is beneficial, as it develops the red blood corpuscles, and prevents anæmia. The advantages of sunshine are seen in both the vegetable and animal kingdoms. According to DALTON, the tadpole requires nine months in the shade to change to a frog, whereas in the sunshine it takes but three. *Plants* lack chlorophyl in the shade, and gain it in the sunshine. The dress is important also. Flannels should be worn all the year round, and a thin abdominal bandage day and night. The child should be bathed morning and night, and kept as cool as possible during the heat of the day; cold water to drink, and cold sponge baths to the head. By care, and these particulars, sickness may often be avoided, and lives saved that would otherwise be lost.

Therapeutics.—In entero-colitis, always begin with castor oil, guarded if necessary with a little opium; or calomel and bicarbonate of soda if the fæcal evacuations show a tendency to acid fermentation; if alkaline, bismuth subnitrate or subcarbonate may be used in place of the soda.

Calomel and bismuth are antiseptic and antiemetic. Bismuth is also mildly astringent, and its local action on the inflamed mucous membrane is sedative. If there are no indications of convulsions, stupor, or collapse, opium in small doses, combined with pepsin or with pepsin and bismuth, answers well. The opium arrests the peristaltic action of the bowels, and quiets the nervous system, while the pepsin aids digestion. Bromides and assafœtida may often be used in place of opium.

When the nervous symptoms preponderate, equal parts of turpentine, sweet oil, and laudanum, heated as hot as can be borne by the nurse's fingers, should be rubbed down the spine twice a day; and when pale limpid urine is passed, it is more important to attend to it than to highly colored urine, for when it is pale and limpid a neurotic state of the kidneys exists, and powerful nerve stimulants should be given.

In cholera infantum, very much the same treatment should be adopted, but stimulants should be used more freely. Probably the heroic treatment of the future, when other means fail, will be to open the abdomen, and wash out the whole of the intestinal tract.

In all acute and chronic cases of intestinal diseases of children, I cannot speak too highly of inunctions of almond or olive oil. If the child is rubbed two or three times a day with oil, an improvement in its condition is soon apparent. The advantages of the treatment are: First a reduction of fever soon after the oil is applied: Second, it nourishes and supports the child, which is a great desideratum when digestion is carried on imperfectly; Thirdly, it regulates the functions of the skin, which, when hot and dry, regains its natural moisture after the use of the oil. Effete material is more readily eliminated, the epithelium, is softened and the transudation of gasses takes place more rapidly through the skin, oxygen being absorbed and carbonic acid gas thrown off. The importance and benefit to be derived from bathing was early recognized by the ancients; under the Roman Emperors the baths attained a grandeur and magnificence that almost challenges belief. A great number of acres were covered by the baths of Diocletian and Caracalla. The world recognizes that the system of bathing attained the greatest perfection in the Roman Empire during the days of Celsus.

At the present time there is a tendency to appreciate more fully the advantage of bathing, not only as an essential and necessary means of cleanliness, but also, as a therapeutic agent for relieving, and sometimes curing, many obstinate and chronic diseases, which do not respond readily to other modes of treatment.

The pepsin used should be soluble, and as pure as possible. An insoluble pepsin contains inspissated mucous and ptomaines. Realizing that there is a great difference in the activity of the various preparations of pepsin, and the importance of selecting the best variety, I decided to test some of the pepsins of the market. The samples were procured from a druggist from the pepsins he had in stock; they were prepared and labelled Nos. 1, 2, 3, 4. Each sample contained a triturate composed of $\frac{1}{10}$ of a grain of pepsin and $\frac{9}{10}$ of milk sugar. I did not know at the time I procured the samples whom they were manufactured by. *Test:*— Several eggs were boiled for fifteen minutes, allowed to cool, and the coagulated albumen freed from the yolk and superficial moisture, then pressed by a spatula through a brass sieve having thirty meshes to the inch. After thoroughly mixing the moist and divided albumen, I weighed out and transferred 200 gr. of it to a mortar; 110 c. c. of water acidulated with hydrochloric acid in the proportions of fifty minims to the pint was used, and the albumen carefully triturated with the same. The water was used in portions so that an uniform division was obtained of the particles. This was transferred to small cylinders placed in an apparatus to which a water bath was attached, and where a temperature of 104° F. was sustained for six hours, with frequent rotations of the digestive fluid.

After the stated time of the operation, the cylinders were cooled, and the activity of each pepsin as to its digestive power was noted. No. 1 was the only one which had digested all the albumen. This potent production is known as pepsin purum in lamellis, and is manufactured by Parke, Davis & Co. As nearly as I could ascertain without weighing, of the albumen in the other tubes, No. 2 had digested $\frac{70}{100}$, and Nos. 3 and 4 about 30 per cent. respectively.

Correspondence.

COOKING FOR THE SICK—HINTS USEFUL IN THE PREPARATION OF MILK FOODS, BROTHS AND NITROGENOUS FOODS.

Through the liberality of DR. GEO. STROWBRIDGE, the students of the University of Pennsylvania listened to a most interesting course of lectures on cooking for the sick, delivered by MRS. ROSER, Philadelphia's most famous cook. MRS. ROSER prefaced her lectures by a few remarks on the necessity of a physician being in this department of nursing. She had been the daughter of a physician, and in early life had seen the importance of proper food for the sick and convalescent; food which, while varied so as not to cloy, but to tempt, was still not of such nature as to impair the chances of successful treatment. She had seen physi-

cians whose success had been largely influenced by their ability to order and change their patient's diet list with good effect. Realizing how little in an ordinary course of medicine such an important subject is treated, and to what degree it would absorb the attention and energy of a young practitioner, she trusted her remarks and work would not be deemed beneath the young physician's notice.

"Barley water should be prepared in the following way, not as is done ordinarily: Take one ounce of pearl barley and cover it with one quart of boiling water. Boil rapidly for five minutes, and then drain off the water and throw it away. Add one quart of freshly boiled water and simmer gently for two hours; after straining, it will be ready for use."

The next recipe was for "Koumys," the following points being given: "Take one quart of milk at a temperature of 98° Fahrnheit, and dissolve one-fourth of a cake of compressed yeast in two tablespoonsful of luke-warm water; add two tablespoonsful of sugar and two of water; this mixture is to be turned into the milk and stirred back and forth gently; pour into glass jars, cover and place them in an upright position at a temperature of about 70° for twelve hours; then turn the jars on their sides, place in a temperature of 55°, and use after twenty-four hours. Very frequently the koumys will be improved by lying even forty-eight hours in the latter temperature.

"Milk punch" was prepared by filling a pint cup two-thirds full of milk, adding one tablespoonful of sugar and one of brandy. She poured this preparation into a glass bottle, corked it, and shook it vigorously for fully a minute. The clear, white, foaming punch poured into a glass was then ready for drinking. "Egg-nogg" came next, there being two kinds according to MRS. ROSER, one in which the milk, sugar, and brandy has added to them the yolk of an egg only, while in the second both yolk and white are put in. While preparing the "egg-nogg," she referred to the inexpediency of boiling milk. "Milk should only be scalded, that is, put into a double boiler and the water in the outer compartment brought to the boiling point. To boil milk itself spoils it; and as milk can be brought to a temperature of 202° F. by the scalding method, this is hot enough. The light film which collects at the top and clings to the spoon when inserted, is the albumen, and may be regarded a sure sign that the milk is properly scalded. Many a patient who would be repelled by boiled milk after a day or so, may be fed on scalded milk for weeks together, and will take the preparation into which it enters with marked relish."

"Plum porridge" was the next receipt and was prepared as follows: "Take one-half pint of milk, add six raisins, and allow to cook for five minutes. Then take one tablespoonful of corn starch and moisten it with two tablespoonsful of milk. Turn this quickly into the half pint of milk, and stir back and forth until it thickens. Then cook for one minute, and add one tablespoonful of sugar."

"In preparing gruels, while the proportion of thickening principles should always remain the same, still it was possible to serve the preparations in many different ways, as by a combination of cream, beef-tea and barley water, and various little articles to change the taste and flavor; thus making it possible to vary the endless monotony of diet which in so many cases is the first cause of loss of appetite on the part of a convalescent patient."

"In the preparation of wine whey, the casein which is the coagulable and indigestible portion of the milk for a delicate stomach, must be separated and removed; in order to bring this about, any acid wine may be used, but in most cases, sherry or Madeira will be found most suited for the purpose. To prepare this, take a half pint of milk and raise it to the boiling point, then take half as much wine and pour it in. Immediately the curd will separate. Then strain it thoroughly through a fine sieve; an ordinary colander will not do, for the particles of coagulated casein can get through its meshes. The best thing to use is a double thickness of cheese cloth, as every particle of the curd must come out, or else it will prove indigestible. It can be served hot or cold, and can be sweetened or not, according to the preference of the patient."

In speaking of the preparation of beef-tea, MRS. ROSER, said: "Never salt it until it is fully finished, for salt hardens the fibre and prevents the juice from coming out freely. In one pound of beef there is 21 per cent of fat, 64 of water and 14 per cent. of nitrogen. This proves that there is not as much nourishment in beef as is commonly supposed. Very often it becomes necessary to administer food to a patient which will leave no waste whatever, but will be wholly absorbed by the stomach; then, I know of nothing which answers this purpose as well as beef tea from which the fibrinous matter has been extracted. To remove the fibrin I give the following instructions. Strain the beef tea and then put it into a cold place. The fibrin will go to the bottom, leaving a clear liquor on top. To remove this matter, put it back on the stove and let it come to the boiling point without adding any water to it. Then put into a bowl the white of an egg and a half pint of water, add the shell, and stir until thoroughly commingled, and allow it to boil for about two minutes. The albumen will then come to the surface and bring with it every particle of fibrin, leaving nothing but a clear liquid." MRS. ROSER stated that in nursing, she had noticed that the stimu-

lating properties of beef tea from which the fibrinous matter had been thus extracted were wonderful, so that on this account it was necessary to administer it with care.

Almost anyone feels that he or she can at least boil an egg, in fact the poorest hand at cooking would be most indignant at any imputation to the contrary; and yet, to cook an egg properly MRS. ROSER showed to be quite a knack. An egg intended to be soft boiled she said should never be tossed into water that was boiling on the fire. "By this method of procedure the white of the egg, which is as you know largely albumen, is quickly hardened and the yolk is left practically uncooked, so that an egg stewed in this way consisted of a hard undigestible mass of albumen and an uncooked yolk. The proper way is to allow the water to come to the boiling point, then remove it from the fire and place it on a table or wherever is convenient, and then place in the egg. It should be allowed to remain five minutes; in this way it will be equally boiled all through and be most palatable and nourishing; in the other way it will be unpleasant to eat and indigestible to the stomach.

A CURIOUS CASE.

EDITOR OF THE MEDICAL AGE:

Dear Sir:—The following case may be of interest to the readers of the AGE.

Patient, Mrs. M., age 65, consulted a doctor seventeen years ago for uterine trouble, and he placed in her vagina a glass ball measuring eight inches in circumference, directing her to return to her home, which was some distance in the country. The ball gave her great pain and discomfort, and she was anxious to have it removed, but her friends urged her to let it remain. About a month ago she consulted Dr. H., of this place who made an examination and found the ball in the uterine cavity. The os uteri was dilated to about one-quarter the size of a silver dollar. He invited my brother and myself to assist him in extracting the ball.

On reaching the spot we found the patient suffering from incontinence of urine, and her bowels confined, only acting when a laxative was given. Such has been the state of affairs since the introduction of the ball.

With considerable difficulty we succeeded in extracting the ball, bnt uot uutil the cervix was split and well dilated. Some hæmorrhage followed the operation, the cavity was well washed out with a solution of corrosive sublimate 1 to 2000; this injection was used moruing and night for a week. The patient rapidly recovered under this treatment, and is now doing well.

Query. How did the ball get into uterine cavity?

E. L. PATTERSON, M. D.

BARNWELL, S. C.

The Medical Age.

A SEMI-MONTHLY REVIEW OF MEDICINE.

B. W. PALMER, A. M., M. D., Editor.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

DETROIT, MICH., AUG. 10, 1889.

Editorial.

INTERESTING EXPERIMENTS WITH PEPTONES.

Under the title of "Peptones and Nutrition," the British Medical Journal, July 20th, discusses editorially the absorption of peptones, and relates some interesting experiments which were undertaken to throw some light on the methods or processes of nutrition. The subject of absorption and assimilation, and its bearings on nutrition, is now attracting so much attention from investigators, and is, moreover, so important, that we reproduce for the edification of our readers this chapter of notes on absorption of peptones:

A great deal of attention has of late years been paid to the chemical changes occurring in the stomach and intestine, both in health and in disease. It cannot be said that our knowledge on these points is at all complete. In artificial digestion it is well known that the action of pepsin in the presence of free hydrochloric acid consists in the transformation of soluble albuminoids into peptones, a series of intermediate products such as acid albumen and albumoses, being at the same time produced. The end-product of gastric digestion, namely, the peptone, has been almost universally cousidered as the form in which the proteids are absorbed, and with this idea peptones are administered to patients whose digestion is deficient. The idea, however, that proteids are absorbed as peptones to any great extent, has been strongly combated by BRUCKE even as late as 1885; and if BRUCKE'S idea is correct, there really does not seem much *rationale* for administering peptones to invalids. There is, however, much more evidence for than against the idea of the nutritive value of peptones. Thus, PLOSZ showed that in dogs peptones could be substituted for other proteids in the food, and with beneficial results. In an experiment lasting eighteen days, a dog received altogether 560 grammes of peptone (made with pepsin), 422 grammes of sugar, and 309 grammes of fat; all the functions of the body remained normal, and the animal gained 3.75 per cent. in weight.

VOIT, however, has shown that although peptones can maintain the nitrogen-equilibrium, they have not the nutritive value of the ordinary proteids taken in as food; after seven months, rats fed with peptones instead of ordinary proteids, die. The question is evidently a very important one to determine. If the peptones formed in the stomach are not nutritive to the animal, they must be considered as decomposition products of the proteids taken in as food; if, however, they are nutritive, they would be considered as hydrated products, the proteids taken in as food undergoing this change in order, by increasing the solubility of the substance, to increase its absorbability. Indeed, HOFMEISTER and HENNINGER, by dehydrating peptones, have been able to obtain a proteid resembling the proteids taken in as food, being coagulated by heat.

There is, therefore, more accurate evidence in favor of peptones having a great nutritive value, than against; that they are, in fact, the modifications in which proteid food is absorbed in the stomach and intestine. This being so, what becomes of the peptone? None, or perhaps only a trace, is found in the lymphatics of the mesentery, only a trace is found in the portal blood, and in the blood of the general system it is extremely doubtful whether any is present. HOFMEISTER asserts that a trace is found in arterial blood, while none is present in venous blood. At any rate, there is a concurrence of opinion that peptones are not present in the blood and lymphatic vessels of the body in sufficient quantity to account for the proteid taken in as food, supposing the peptones are absorbed as such. An interesting experiment of HOFMEISTER'S points to the fact that in traversing the wall of the living intestine, peptones undergo an important change. In the first place, during digestion, peptones are found in quantity in the mucous membrane itself, but are not found deeper down in the intestinal wall. Secondly, an animal was killed in full digestion, and two pieces of intestine removed; one piece was heated to destroy the living tissues, while the other piece was kept for a short time at the temperature of the body. The first piece of intestine contained peptone in abundance in its walls, while the second piece contained none. This piece of intestine still lived, and was able to transform the peptone it contained, while the first piece, being killed, was unable to do this.

Here, then, is a case of "vital" absorption; the peptones do not simply diffuse through the wall of the intestine, but are taken up by the mucous membrane and transformed by it. Transformed, but into what? This is the next question to decide. Presumably it is transformed into serum albumen, as this is the chief proteid found in the liquid part of the blood. To the elucidation of this question experiments have been undertaken in Prof. KRONECKER'S laboratory in Berne by two ladies, FRAULEIN NADINE POPOFF and FRAULEIN JULIA BRINCK. The results are published in the Zeitschrift für Biologe. The fact which was the basis of these experiments was first discovered by VON OTT, namely, that peptone, when placed in the stomach of a living dog, was transformed into serum albumen before it entered the walls of the digestive tract. There are obviously many difficulties at arriving at a correct conclusion on this point. Large quantities of peptones which would facilitate chemical analysis cannot be used, as the conditons would not be natural. At no time during natural digestion is there a large quantity of peptone in the stomach. With small quantities of peptone it is difficult by chemical analysis to be certain of the form of proteid present. Then, even if part of the peptone were changed into serum albumen, it would be difficult of detection by chemical means, although not impossible. FRAULEINS POPOFF and BRINCK have not applied this chemical test, but have employed a physiological one. The frog's heart, as is well known, may be separated from the animal and kept pulsating for many hours if a proper nutrient liquid is supplied it. One of the best nutrient fluids is 0.6 per cent. salt solution, to which a certain proportion of serum is added; this liquid will keep the heart beating many hours. If, however, only salt solution be used, the heart comes to a standstill after a short time; and if peptones be added to the salt solution, the heart may be stimulated to beat for a short period, but soon becomes quiescent.

Now the chief fact brought out by FRAULEIN POPOFF'S experiments is, that if a solution of peptone be placed in the stomach of a living dog and removed after fifteen minutes, it is found capable of sustaining the activity of the frog's heart, while previous to being placed in the stomach it was incapable of doing this. This change in the peptone solution is more marked if it be placed in the small intestine instead of the stomach. A curious fact brought out by the research is that while the peptone formed by pepsin can be changed in the manner described, by the stomach and intestine, that formed by the pancreas is unaltered; in other words, pancreas-peptone, both before and after the exposure to the action of the intestinal wall, does not act as a nutrient fluid for the heart.

FRAULEIN BRINCK has repeated and confirmed FRAULEIN POPOFF'S experiments, and has extended them. She has shown, for example, that the effect on the peptone is not simply due to temperature, for a solution kept in the incubator at the temperature of the stomach does not sustain the cardiac beat. Moreover, the stomach and intestine seem to

retain their regenerating power for a short time after the circulation of the blood has been stopped: a fact previously discovered by HOFMEISTER. The regenerating effect is, therefore, ascribed to the epithelial cells lining the stomach and intestine, and so it was naturally suggested that other epithelial cells might have the same power. It was found, indeed, that the frog's heart could change the peptone solution, rendering it nutritive to itself. Thus, if the solution be passed four to ten times through the heart, it then becomes capable of sustaining the cardiac activity. Another interesting aspect of the subject was shown by the fact that a pepsin-peptone solution, which had just begun to decompose, was a powerful sustainer of the heart's action; while if the decomposition be allowed to progress, the liquid becomes a cardiac poison, instead of a cardiac food. FRAULEIN BRINCK suggests that the first effect is due to the special organism she describes, *micrococcus restituens*, forming serum albumen from the peptone; while in the later stages of the action by another organism growing in the liquid, a poison is developed. The first effect would, therefore, be another instance of the formation by a cell of serum albumen out of albumose and peptone. Here the matter at present rests. Although the researches discussed are extremely interesting, until the body formed from peptone in the stomach and intestine is separated and chemically tested, it seems premature to call it "serum albumen." Moreover, if peptones are the end-products of proteid food, it is difficult see the *rationale* of their transformation into serum albumen within the cavity of the stomach and intestine; one would rather expect the change to occur in the walls. No doubt future researches will elucidate these points.

THE TREATMENT OF FRACTURES OF THE LEG.

Després has proposed a modification of Maisonneuve's plaster splint for fractures of the leg, which for its simplicity and adaptation to the conditions for which it is intended, commends itself to the practitioner who wants a cheap, convenient, and reliable apparatus for fractures of one or both bones of the leg.

Take a piece, half a yard wide, of coarse tarleton muslin, cut a strip twice the length of the leg, measuring from the anterior tuberosity of the tibia to the sole of the foot. Fold the strip in several doubles, so as to make a band three or four inches in width. The fracture must now be set, and kept reduced by the help of an assistant.

Take a quantity of plaster of Paris, put it in an earthenware basin, and add enough warm water, with constant stirring, till the plaster is about the consistence of cream. Unroll the strip of muslin and soak it in the plaster paste, working the plaster into its meshes with the hands, then fold it up again several times double, as before; during this operation the plaster begins to dry.

The limb is held all this time by one or more assistants who keep the foot and leg in the proper position. The surgeon adjusts the plaster by applying the middle to the sole of the foot and bringing the two tails up the limb, the one on the inner, the other on the outer aspect of the leg, and moulding them to the limb. The strips should not be brought higher up than the inner tuberosity of the tibia, and the head of the fibula.

When once the plaster strips are applied, the surgeon, who has left uncovered the spine of the tibia in front and the calf of the leg behind, takes note of the relations of the fragments of the tibia, and presses in one way or another while the splint is drying, so as to effect and to keep perfect juxtaposition. While the drying is going on, and before the plaster is quite set, an assistant keeps the foot in a straight position. As a rule, the parts are in a good position when the line that passes through the middle of the ankle joint will, if prolonged upward, pass through the inferior angle and middle of the patellæ.

When the muslin splints begin to dry, it is well to rub in fresh plaster paste from the basin, and smooth the splints with the fingers.

After the plaster mould is fully "set," three elastic straps with buckles are adjusted to the apparatus, one being buckled over the site of the fracture, if this be about the middle of the leg, one over the ankle, and the third over the upper part of the splints. To prevent too much pressure on the skin, a square compress is placed under each elastic strap where it presses over parts not covered by the splints. Later on, a little cotton batting may be placed beneath the edges of the plaster splint which press rather hard on the skin.

The elastic straps in this apparatus are altogether better than the strips of sticking plaster used by Malgaigne, or the ordinary plaster bandage, which too much keep the seat of the fracture closed to the observation. If the side splints be fastened to the limb by tapes, these have to be tightened every day, and do not sufficiently yield to the distension caused by the swelling during the first few days of the fracture.

Doubtless the ideal apparatus for fractures is one which shall keep the fractured limb completely at rest for the first twenty days. The plaster splint above described is a rigid mould which so well confines the limbs that the patients can make certain movements and even turn over in their bed with the splint on without deranging the fragments, and without experiencing any pain. This plaster mould

leaves uncovered a part of the limb, and enables the surgeon to see how the fracture is progressing, and the solidity of the mould is not compromised by such examination of the seat of the fracture.

The elastic straps render the compression of the member more efficacious, and when they are buckled with sufficient tightness, the patient moves the limb with the greatest facility. These straps can be tightened every day, or every second or third day in order to make the splints fit more closely to the limb.

In the opinion of Després, who has long treated fractures of the leg by this method, there is no other apparatus which offers equal advantages.

BROWN-SEQUARD AND HIS ELIXIR OF YOUTH.

Some of the French medical journals have been making no little fun over BROWN-SEQUARD'S discovery of the Elixir of Youth (*i. e.*, the injection into the sub-cutaneous cellular tissues of testicular liquid), and believe that the old physiologist has been the dupe of his own imagination; and the Journal de Medécine de Paris (June 23d) devotes a column of fine irony, ending with some doggerel verses, to the subject. In a subsequent number (July 14th) the writer of the aforesaid article returns to the theme (which has made a stir over the whole civilized world), still in an ironical manner. BROWN-SEQUARD has since his first communication made another discovery more astonishing still, *i. e.*, that masturbation is a cure for certain forms of senility! But we will let the French journal speak:

"In BROWN-SEQUARD'S notion, all life resides in the testicle. The Romans attributed a certain importance to these essential organs of vitality, in taking them for witnesses in judiciary oaths. Instead of lifting up the hand before the image of Christ, these vigorous peasants seized their testicles when they pronounced an oath. But BROWN SEQUARD goes further, he says with assurance:

Hors du testicule pas de salut.

"It is essential that the testicles should constantly do work and secrete. If they become enfeebled, there is a decline in the forces, physical and moral. It is for this reason that the eminent savant injects conscientiously his testicular broth into the veins of debilitated senility.

"But BROWN-SEQUARD'S last deliverance caps the climax in practicability and import ance; he advises a new method of treatment for old men who are losing their faculties. It is a treatment easy to carry out at home or abroad! Here is the secret of rejuvènation:

"Two subjects who were worn out, the one aged fifty-five years, the other sixty-five, experiencing marked cerebral enfeeblement, went to consult BROWN-SEQUARD. The eminent physiologist advised them simply, in order to recover their lost vigor, to have recourse to—*masturbation!* not a complete, but a measured, scientific masturbation, made *secundum artem.*

"It is necessary to masturbate slowly, so as to cause the testicle to functionate, but stop short before ejaculation, in order not to deprive the organism of the precious testicular secretion, which, according to M. SEQUARD, is the very essence of life. As soon as the contraction indicative of ejaculation commences, it is necessary to cease all manœvures. The two old men have followed the treatment, and are now ardent and vigorous, physically as well as morally. So much the worse for the chaste Susannah!

"We now know the secret of eternal youth. We know why THIERS, CHEVREUL, LITTRE, and so many other octogenarians, have been able to keep to the last hour their powers and their intellectual vigor; they had their little receipt which they took care not to divulge, selfish men that they were!"

There is much more in this strain,—but we forbear. It is hardly worth while to follow BROWN-SEQUARD in his speculations as to the effect on the female sex—we mean antiquated and worn out specimens of this sex—of injections of ovarian juice;—the cat has been suggested as a suitable animal to use for this purpose, as the cat is an animal full of life and salacity! Nor do we know why, theoretically, the same testicular juice that so benefited the decrepit SEQUARD might not work equally great wonders in some aged general paralytic of the female sex. What matters it though the arteries are atheromatous, the kidneys contracted, the spinal cord sclerosed, the heart fatty, the cortex cerebri atrophied? Take the testicle of a hare or the ovary of a cat; * * * *—our readers already know the rest of the now famous receipt which (all but the hypodermic syringe) has a Mediæval smack as if taken from that antiquated book, the *Rosa Anglica* of JOHN of Geddesden.

FRUIT DIET AS A THERAPEUTIC MEASURE.

That raw fruits are too little employed is doubtless a fact. During the hot weather, to attain the best results as regards health, at least one-third of the diet should be made up of good, sound, ripe fruit, which is best taken in the morning on an empty stomach, and much to the exclusion of everything else. Americans go too much to chops, steaks, hot rolls, and that abomination known as *biscuit*, for the matutinal meal, and suffer from dyspepsia accordingly, later invoking the flagging

digestion by means of libations of alcohol, or quack nostrums of which spirits is the chief ingredient. The cock-tail and bitter before eating, is a truly American habit and custom, for most civilized people stimulate with spirits only the overloaded stomach. Is it any wonder then that gastric catarrh is, so to speak, a National disease?

In the tropics, the morning repast is usually fruit to the exclusion of everything else, except, perhaps, a cup of *café noir*, heavy feeding being reserved for the latter part of the day when the economy can give itself up wholly to the discussion of food. Common sense teaches that carbo-hydrates are not demanded in excess in hot weather, or in equal proportions during all seasons of the year; but fashion demands them, and to no good end, as may be discovered by consulting the *carté* of any fashionable hotel; except in the matter of some few vegetables, the list is practically the same the year round, and fruits occupy only a relative and secondary place.

The more watery and sub-acid fruits, serve a double purpose in stimulating peristalsis and the secretions of the stomach and intestine, thus washing out the *primæ viæ*. That they increase the supply of pancreatic and biliary fluids, is not to be controverted, hence are antiseptic, while tending to better digestion and absorption. One of the best agents for the control of the bowels in warm weather is the much-abused *citrullus*, the delight of the small darkey, *vulgo* "watermelon," and that is erroneously charged with most of the intestinal irregularities that occur during the heated term. That its first action is cathartic, when one has been accustomed to the dryer foods or is dyspeptic, billious, and constipated, is not to be denied, for it stimulates the very secretions that have so long been locked up or forced into abeyance; but the first effect passed, the influence is all for good. More than one dyspeptic has learned that a watermelon diet affords relief such as is not obtainable by ordinary drugs.

So too, the summer diarrhœas, dependent as they usually are on improper and perverted digestion, readily yield to ripe fruits in the same way. The acids, pepsin and pancreatin, that are needed to regulate digestion, in this way are oftentimes secured within the organism, without the necessity of appealing to porcine or ovine stomachs. It is rare indeed that an attack of indigestion attended with foul mouth and eructations, coated tongue, heavy eyelids, insomnolence, etc., will not yield to a few days' diet of raw fruit. "We once knew an eccentric character," says the Texas Health Journal, "who was regarded by his neighbors as a 'crank,' that on taking bilious fever stopped all food except fruits, of which he would devour prodigious quantities. On several occasions, during a period of ten years, we have known him to stoutly refuse all medication, except raw acid fruits, and he always recovered as promptly as his friends who were given to heroic doses."

There is always particular benefit to be derived from raw-fruit acids in febrile cases, particularly where so-called malaria is a prominent feature; and the potency of rich, ripe, juicy fruit in the prevention and relief of biliousness is remarkable, and would seem to demand more attention at the hands of the medical profession. Berries, bananas, melons, apples, oranges, may frequently be prescribed for children to the avoidance of the nauseous doses that tempt the littleones to regard the medical man with fear and horror, and the result, oftentimes, will be more satisfactory to the prescriber. But the selection of fruit must be made judiciously, for the seeds of berries, and grit of pears, at times are provocative of ill results. Fruits, too, are nourishing—a pound of banana is equal to more than double the weight of wheat flour; and in rickets, and those maladies arising from lack in the economy of calcium phosphide, the need cannot in any way be better supplied, and with greater certainty of absorption and assimilation, than by a fruit diet.

INTRA-UTERINE THERAPEUTICS.

Gynæcology is a development of this century. It is almost within the memory of some aged physicians now living, when RECAMIER, of the Hôtel Dieu, Paris, first began treating cancerous and other ulcerations of the os and cervix uteri with mild astringent applications, made through a tin speculum. RECAMIER may almost be said to be the father of gynæcological surgery. The success which attended his method gradually led to its general adoption; for the tin or glass tubes first in use, the more convenient and useful bivalve speculum was substituted, and for the mel rosatum, which with RECAMIER was a favorite topical agent, caustics of various kinds, and especially the lunar caustic so much relied upon by gynæcologists of a former generation, as MEIGS', came to be used.

Exaggerated importance was at first attached to certain so-called ulcerations and raspberry-like abrasions about the os, which with curative intent were freely touched by the solid stick or strong solutions of the silver nitrate; it was subsequently found, however, that these abrasions and ulcerations were generally excoriations, the result of the irritating quality of the mucous discharge from chronic cervical catarrh; this catarrh being cured, the ulcerations got well. It was also settled, by the help of the speculum, that leucorrhœal discharges are derived in most cases, not from the vagina,

but from the uterus, and are dependent on cervical folliculitis.

The attention of gynæcologists was at first directed more particularly to maladies of the neck and mouth of the uterus, than to those of the body of that organ and the uterine appendages. This circumstance is explained by WEST in this way: So long as the lining membrane of the uterine cavity was supposed to exist in the unimpregnated state merely in a rudimentary condition, it was most natural that an exaggerated importance should be attached to the various morbid appearances of the os and cervix uteri; and as long as the ovaries were believed to be called into activity only at the time of sexual congress, it was to be expected that their share in the production of diseased phenomena should be rated very low.

Doubtless one reason—and the main reason—for the hesitancy to treat locally diseased states of the endometrium of the corpus uteri was, the extreme sensitiveness of that membrane and its frequent intolerance to active medicinal agents. *Noli me tangere*, seemed to be its cry; this was echoed by obstetricians and gynæcological professors. Cramp-like pains lasting for hours, and in some cases even ending in death, often followed the injection of an ordinarily harmless fluid, like a solution of perchloride of iron. Every obstetrician has recorded instances of the kind in his note-book, where, to arrest hæmorrhage, some simple application was made to the corporal endometrium, which was followed by agonizing and even alarming pains.* Hence gynæcologists advised to be very chary in their applications. BARNES gives one all-important caution to be religiously observed: *Never use any topical application to the uterus when a menstrual period is impending.*

The explanation generally given of the untoward results sometimes attending topical medication of the uterine cavity, has been that a spreading inflammation was thereby excited, the adnexa and peritoneum being involved. It was also believed and taught, that when injections were used some of the fluid might run along the Fallopian tubes to the peritoneal cavity and determine peritonitis. Experience, moreover, proved that the risk of danger in intra-uterine medication was lessened by securing patency of the cervical canal, and by applying the local agents by swabbing, in the form of powder or solid stick, or in ointment.

Of late gynecologists have come more and more to recognize the existence of corporeal endometritis, and the necessity of treating topically this inflammation which is the frequent cause of dysmenorrhœic sufferings, headache and backache, with other reflex nervous symptoms, besides, probably, numerous inflammatory processes in the vicinity of the uterus. SCHRŒDER regards frequent profuse hæmorrhages, especially at the menstrual period, as the most characteristic pathognomonic sign. SCHULTZE claims that he has cured many a case of sterility taking its origin in endometritis corporis, by intra-uterine carbolic injections, followed, in inveterate cases, by thorough curetting of the uterine mucosa.

A series of interesting papers has lately been published in the American Journal of Obstetrics, by Dr. MARY PUTNAM JACOBI, on Intra-Uterine Therapeutics. Dr. JACOBI finds the cases very numerous where she deems it advisable to resort to cauterizations within the cavity of the womb. In her second paper, she gives an analysis of fifty cases where intra-uterine medication was used. Of these, thirty-nine were cured of pelvic symptoms without accident; two were cured in spite of the occurrence of accidents; in one case peritonitis occurred and proved fatal, while in six cases, intra-uterine medication failed to relieve the patient, and was soon adandoned. In a large class of cases which Dr. JACOBI regards as typical, menstrual sub-involution of the fundal endometrium results in its hypertrophy, hyperæmia, and attendant paræsthesia of the uterine nerves, with dysmenorrhœa, permanent local pain, and irradiated hysterical disturbance. Caustic applications are made on a probe to the thickened endometrium, and this ensures a more complete involution at the next menstrual period where there is no parenchymatous metritis, and a cure is rapidly effected. Favorite applications are iodized phenol applied on absorbent cotton, carbolic acid and glycerin, nitric acid diluted with an equal quantity of water. The cervix must previously be dilated with sponge or laminaria tents. Where the cervix uteri is swollen and painful, it is scarified, and hot injections are used. The occurrence of severe pain, indicating uterine cramp, half an hour after the application has been made, is very common. The uterine parenchyma is thrown into contraction when the effect of the cauterization, entending through the endometrium, finally reaches the sub-endometrial layer of muscular fibres. This uterine pain, however, generally soon subsides, especially after morphine.

In reading the literature of gynæcology, and especially such articles as those of Dr. PUTNAM JACOBI, one is struck; 1, By the great prevalence of gynæcological disorders, and the large proportion of women that are suffering from catarrhal or other uterine affections requiring treatment; 2, The knowledge, skill, and experience necessary to diagnosticate and treat these disease successfully. Thirty-five years ago, C. D. MEIGS in his treatise on Acute and Chronic Diseases of the Neck of the Uterus, deprecated

* For instances of death following these injections, see Barnes on Diseases of Women, p. 464, etc.

the fact that the therapeusis of these affections was drifting into the hands of specialists, instead of remaining, as it ought, "in charge of the family physician or surgeon." He regarded this tendency to specialization, "as a thing most injurious to the profession, which ought to be a whole in the whole, and a whole in every part." Since that day, a vast army of gynæcologists, male and female has arisen, among whom (were he living) MEIGS with his nitrate of silver caustic holder touching ulcers and abrasions on the os uteri, would be a small figure; the physiology and histology of the uterus are better understood, and its pathology has undergone important differentiation; the difficulties of the treatment of chronic uterine ailments (which seem to be on the increase) are becoming more and more appreciated, and the general practitioner is often only too glad to resign cases which have baffled his skill to the superior knowledge and experience of the specialist.

PROF. WM. C. GUSTIN.

It is with profound sorrow and regret that we chronicle the death of Doctor GUSTIN, of this city.

We knew him well, in our younger days most intimately. We began the struggle for professional success together, in the same city, almost at the same time; and amidst all the rivalry of competition, the friendship founded at first meeting was never lessened.

Genial, sterling,and upright beyond ordinary men, he commanded the respect of all, and the deepest affection of his intimates. He was one of the purest and noblest of men that ever entered the profession—a profession he loved for its own sake, and not for its pecuniary rewards.

Inclined rather to reticence, even shyness amongst strangers, he perhaps did not always appear at his best; but those who possessed sufficient acumen to penetrate beneath the mantle of reserve, speedily knew him as he was, and the friendship once formed was never severed. In matters of professional etiquette and courtesy he had few equals. Ever just, upright, and honorable, he would never accept the patient of another physician until the latter had been properly notified, and *paid*. Indeed, in all professional matters he was above jealousy, and no one loved so well to take the young aspirant for professional honors by the hand and render him substantial and practical assistance.

A brother could not have been dearer to the writer than was Dr. GUSTIN, and his loss will be felt in more than one family circle outside his own. G. A. S.

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At a special meeting of the Wayne County Medical Society held July 7th, 1889, the following preamble and resolutions were unanimously adopted:

Whereas, It has pleased our Heavenly Father to remove by death our fellow-citizen, companion and brother, WILLIAM C. GUSTIN, M. D., an original member of this Society, a gentleman and practitioner of more than ordinary merit, creating a vacancy in the medical profession of our city that cannot he well filled; therefore.

Resolved, That we deeply sympathize with his family in this their great affliction.

Resolved, That a copy of this preamble and resolutions he sent to his hereaved family,and entered upon the minutes of this Society.

HENRY F. LYSTER, M. D.,
HAL C. WYMAN, M. D.,
C. J. LUNDY, M. D.,
Committee.

Book Notices.

THE EDUCATION OF GIRLS FROM A MEDICAL STAND-POINT. By Edward W. Jenks, M. D., L. L. D. Pp. 12. Reprinted from Transactions of the Michigan State Medical Society.

This is one of a series of sociological papers that have from time to time appeared from the pen of Dr. JENKS. Among other matters discussed is the cause of fœticide, so prevalent in our county, and the causes that lead thereto; and the warning is sounded, that the present attempts toward lessening fecundity are such, that the replenishing of our population is chiefly from foreign, instead of (as it should be), from native sources; "the essentially American element threatens to be swamped." He also remarks that it is not to be denied that the average standard of health among American women if far below what it has been in the past; "Nervous hysterical school girls with flabby muscles are to be found in the mechanic's cottage, as well as in the millionaire's mansion," a condition discoverable in no other civilized country in the world. "Many parents are actually giving their girls a pathological education—training them to be patients in fact," says Dr. JENKS. He concludes this most interesting and valuable paper with the assertion he is "In favor of the highest type of education for women in keepiug with their means and station, but not at the expense of health or by wrong methods which lead to disease and early decay."

THE PHYSICIAN HIMSELF. By D. W. Cathell, M.D. Published by F. A. Davis, Philadelphia, Pa. 1889; 8vo, pp 283; cloth. Price $2.00.

This beiug the ninth editiou of this work, is sufficieut evidence of its popularity. That it is both readable aud interesting, goes without saying, aud we cordially commeud it to all students and practitioners as a guide in professional matters, both of ethics and deportment.

One most trite remark in relation to the dealings of physicians with pharmacists, we cannot refrain from quoting:

"It would be wrong, wrong in any light, to go hand-in-hand with a pharmacist, receiving from him a percentage on your prescriptions as payment for sending them to his store, and for this reason: Were you to accept such an offer, it would be robbing the purse of either the pharmacist or patient. Were the former to allow you ten cents for each prescription, and reimburse himself by adding that amount to the sum charged the patient for the remedy, it could not be looked upon in any other light than that you had combined to *fleece* ten extra cents from every poor sufferer who trusted to your honor, just as you would look upon a lawyer who took fees from both sides."

Notes and News.

Ethical Resolutions Passed by the Congress of German Physicians.—The Berlin correspondent of the London Lancet, in the July 20th number, reports that, on June 24th, the Seventeenth Congress of German Physicians met at Brunswick and passed the following resolutions: "(*a*) 1. Every kind of public laudation, whether it proceeds from the physician in question himself or from others, and advertising in public papers, are to be reprobated. 2. The designation 'specialist,' for puffing purposes, is to be deprecated. 3. The public offering of medical assistance gratis, underbidding in concluding contracts with sick societies and the like, offering advantages of any kind to a third person in order to procure practice, are inadmissible. 4. The ordering and recommending of secret remedies are inadmissible. 5. Any attempt of any kind on the part of a physician to intrude upon the practice of another is dishonorable, especially in the case of one who has acted as substitute or in consultation. A practitioner must by no means undertake the treatment of the case without the express assent of the previous physician. A specialist called in for a definite part of the treatment must strictly confine himself to that. 6. No physician is at liberty to make disparaging remarks to others about another physician. (*b*) For the enforcement of these rules, courts of honor (or the like) are to be established everywhere, with whom the power of breaking off the professional connection rests as an effective measure against those physicians for whom warnings do not suffice." As regards the position of the physician as an expert witness in courts of law, which has been the subject of many conflicts between judges and physicians, the Congress passed the following resolutions: "1. If a physician be summoned to act as an expert witness in a court of law, and if questions be put to him which he can answer only as an expert, he has to ask the Court whether it be not advisable to swear him as an expert. 2. If the Court refuse to do so, and if the physician be nevertheless compelled to give his opinion as an expert, he shall complain to the competent authority. 3. If a physician be called upon to give his opinion as an expert on the basis of statements which the physician who treated the case in question has made as an expert witness, he must conscientiously ask himself whether he is able to give a pertinent opinion on the basis of these statements; and if his conscience tells him that he cannot, he must make the giving of his opinion dependent on co-operation with the physician who treated the case, and who must be called as an expert witness. 4. The supreme legal authorities shall be requested urgently to recommend the courts always, even when one of the parties objects, to appoint the physician who has treated the case, as, if not the sole expert, yet one of the experts in conjunction with other physicians in cases in which the said physician has been examined as an expert witness, and an expert medical opinion is to be heard on the basis of his statements."

The Shah of Persia and the Phonograph.—The N. Y. Times, in reporting the incidents of the visit of the Shah of Persia to London, thus writes of his introduction to the phonograph:

During his stay at Lord Brownlow's Castle, Col. Gouraud made a little speech to the Shah, saying that if his Imperial Majesty would prolong his travels to America he would be afforded as splendid and hearty a welcome there as had been extended to him in this the great mother country. This, with more or less import, the Colonel said, all of which was translated to the Shah by Prince Malcom Khan, and indented upon the phonograph. Then the speech was wound off as pronounced in Persian by the Prince, whereat the Shah smote his palms together and cried, "Oh! oh!" and "Wonderful!" Anxious for more, his Imperial Majesty bade the poet of the suite recite some verses from the great Persian poet, Hafiz, into the receiver. In the Persian Court and suite it is not only the professors of ancient and occult sciences that have a place, but modern science, art, literature, and much beside, are included in the necessary retinue of the sovereign. Out came in due course from the phonograph the verses of Hafiz, with the exact intonation of the speaker, which caused the Shah anew to clap his hands and express the utmost surprise. One thing led to another. He spoke into the instrument himself, Prince Albert Victor did the same, and Lady Brownlow followed. Then the Duke of Abercorn said something, there was laughing, crying, and whistling, and, finally, the band played a tune, all of which in due succession were afterward reeled off, to the astonishment of the

Shah and his suite. A pause ensued, and his Imperial Majesty laid his hand upon the machine, and Prince Malcom Khan, speaking for his sovereign, said: "The Shah would like to have that instrument, or one like it." "It is his," said Colonel Gouraud. "But," said the Prince, "he knows it is a new one, and the only one you have of its kind in Europe." "All the same, it is his Imperial Majesty's as though there were many more," said the astute and courtly American. "Then the Shah will take it at once to Teheran, and he would like to get some one to go with him to work it," further interpreted the Prince.

A Blackmailing Plot Defeated.—Mr. Malcolm Morris, a London surgeon, recently the subject of an attempt at blackmail, in the guise of a suit for breach of promise of marriage, has had the satisfaction of seeing two of the conspirators against him sent to prison. The principal offender was sentenced for five years, the other for eighteen months. The sympathy of the London profession was unanimously in Mr. Morris's favor in the contest, and, now that he has won his cause, he has been presented with an address of confidence and respect. Many of his *confrères* have also subscribed their names to a paper agreeing to make up a fund to reimburse him for a part of the heavy expenses made necessary by the contest, headed by Sir Andrew Clark, Sir James Paget, Sir. Alfred Garrod, Dr. Quain, Dr. Ord, Dr. Broadbent, Mr. Critchett, and many other well-known men. The "Lancet" also appears upon the list for five guineas, and its editor congratulates Mr. Morris on the result, and praises him for his courage in making a stout resistance where a weaker man might have been tempted into a compromise with the conspirators.—*N. Y. Med. Jnl.*

Badges for Parisian Students.—The Parisian students have recently decided to wear certain marks of distinction, to denote the courses which they are pursuing. Medical students will wear, on a boutonnière of red and black, a little violet band with a skull made of some white metal. Army medical students will wear, on a garnet boutonnière, the symbol of health—the rod of Æsculapius in gold. Students of pharmacy will be distinguished by the emblem of pharmacy, a silver shaft encircled by a gold serpent, worn on a green boutonnière.—*Med. Record.*

New Remedy for Acute Rheumatism.—H. GINDERBORN, in the Berlin. Klin. Wochenschrift, reports on four cases of rheumatic fever treated with dithiosalicylate of soda. Three grains were given at a single dose, which was repeated as often as four times a day. The fever and pains in the joints were influenced very favorably by the drug, which did not produce any after-effects except slight sweating. The advantages over salicylic acid which are claimed for the new remedy are, more powerful and less ill-effects.

A Wart Microbe.—It is said that Dr. GEORGE KUHNEMANN, working in the laboratory of Professor SCHWENINGER, has succeeded in discovering the bacillus of ordinary epithelial warts. The fact that such warts are sometimes contagious would be explained by this discovery.

The Times and Register has absorbed the Polyclinic and the American Medical Digest. Five journals have now been consolidated and will be published under the auspices of the American Medical Press Association.

Can Instant and Painless Death be Accomplished by Shock.—Edison in his recent evidence in the Kemmler case answers this query in the affirmative.

DR. S. WEIR MITCHELL has made another literary venture. "The Cup of Youth," a volume of poems.

DR. HENRY M. HURD, of Pontiac, Mich., has accepted the office of Superintendent of the John Hopkins Hospital.

Therapeutic Brevities.

Simulo as a Remedy in Epilepsy.—M. Allen Starr (Med. Record), refers to the reports of White and of Eulenburg on the use of simulo in epilepsy, and then details his own experience with it in seven interesting cases of the disease. The general conclusions which he draws from these are as follows:

1. Tincture of simulo has no effect upon attacks of hystero-epilepsy or upon the hysterical state.

2. Tincture of simulo has some effect in modifying the frequency or severity of attacks of petit mal or of procursive epilepsy.

3. Tincture of simulo has some effect in modifying the frequency and severity of attacks of grand mal, but is inferior in this respect to the bromides.

4. In cases when for any reason it is deemed necessary to suspend the bromides, it would be well to substitute simulo for them.

The author says there seems to be no ill-effect from the use of the drug. He has found no evidence of change in the rate or character of the pulse or respiration, no dilatation or contraction of the pupils, no muscular weakness, no mental depression or excitement, and no disturbance of the digestion in the doses in which it was used. He thinks it would be well to increase the dose progressively until one or even two ounces are used daily. The chief objection to its use at present is its costliness, the price being twenty-five cents an ounce.—*Amer. Jour. Med. Sciences.*

Viburnum Prunifolium in Dysmenorrhœa.—The following formulæ for alleviating dysmenorrhœic pains are given by the "New York Medical Journal:" Tincture of piscidia erythrina and tincture of viburnum prunifolium, of each twenty drops, to be given four or five times a day. Piscidia erythrina possesses antineuralgic properties. Viburnum prunifolium is an anti-spasmodic analagous to valerian, and a moderator of the excito-motor power of the medulla oblongata. 2. When the dysmenorrhœic pains are accompanied by menorrhagia, it is advisable to add to the virbunum, hydrastis canadensis, which has vaso-constrictive properties somewhat like those of ergot of rye and quinine sulphate. Twenty drops of a mixture of equal parts of the two tinctures may be given four or five times a day. 3. Under the name of a uterine sedative, the following potion has been prescribed:

Tincture of viburnum prunifolium, 20 drops.
Elixir de graus,
Syrup, of each, 231.48 grains.
Distilled water, 462.96 grains.

One soup-spoonful to be given every half hour or every hour. The elixir de graus is made of compound tincture of saffron and syrup of capillus veneris (maiden hair), colored with caramel dissolved in orange-flower water. —*Medical Standard.*

Morphine-Vaselin as a Local Application in Cancer.—According to Dr. B. W. Richardson, morphine combined with vaselin forms one of the best possible sedative applications in cases of external malignant disease in which there is ulcerative breach of surface with continuous pain. The mode of prescribing the preparation runs as follows:

℞ Vaselin, pure, ʒ j.
Chloroform, ʒ ij.
Morphine, gr. iv.

Mix thoroughly and make into an ointment.

By using the chloroform a larger quantity of morphine can be introduced than if the alkaloid were used alone, the distribution through the mass being more complete. The chloroform, in the proportions named, causes, as a rule, no irritation, but acts rather as a sedative. Chloroform also is a powerful antiseptic, and as such is a good remedy in the class of cases under consideration.

Morphine-vaselin is most conveniently applied thinly spread over a piece of fine lint or soft linen. It is easily removable without injury to the surface upon which it is applied, and it may, therefore, be used even on surfaces from which the danger of hæmorrhage is foreseen. The dressing may be renewed twice in the course of twenty-four hours.—*Med. News.*

Exalgin in Dysmenorrhœa.—Exalgin is fast being introduced into the therapeutics of various ailments. Its most recent successful use is, perhaps, in neuralgic dysmenorrhœa, in which painful affection its anodyne properties give most satisfactory results. The following formulæ for its use are quoted from the Revue de Thér. méd.-Chir., June 1, 1889:

℞ Curaçao, f ʒ jss.
Exalgin, grs. xl.
M.

A teaspoonful of the above contains about four grains of exalgin. Curaçao is the best medium for its administration, as it almost completely disguises the unpleasant taste of the drug. Another agreeable formula is:

℞ Linden-flower water, 100 parts.
Laurel water, 10 parts.
Curaçao, 40 parts.
Exalgin, 3 parts.

M. Sig.—A teaspoonful to be taken every half hour until the pain ceases. Doses of a dessertspoonful may be given if the pain is very intense.—*Medical News.*

Salve for Ptyriasis Versicolor.—The following salve, which is recommended by the Deutsche Medicinische Wochenschrift, June 6, 1889, as an efficient remedy in cases of ptyriasis versicolor, should be rubbed into the affected skin every evening and washed off with soap and water the following morning:

℞ Salicylic acid, 3 parts.
Precipitated sulphur, 10 parts.
Vaselin } ää, 50 parts.
Lanolin }
M.

A Formula for Aphthous Stomatitis.—

℞ Salicylate of soda, 20 parts.
Distilled water, 100 parts.
Dissolve.

In cases of aphthous stomatitis the inflamed parts should be painted with the above solution five or six times during the day, particularly after meals The mouth should previously be well rinsed out with tepid water.—*L'Union Médecale*, June 15, 1889.

Jequirity in Ophthalmology.—Dr. Coreca employs jequirity in inveterate trachoma, superficial keratitis, and chronic purulent conjunctivitis, making fresh for each application a solution derived from macerating for 24 hours, 45 grains of the powdered seeds in 20½ drachms of water. He applies freely to the inflamed conjunctiva not repeating until the acute ophthalmia produced has disappeared. He has never obtained unfavorable results.

Pepsin as an Aid to the Assimilation of Medicaments.—The addition of pepsin improves the effectiveness of many medicines, such as balsam of copaiba, oils of cubeb and sandalwood, cod-liver oil, etc., forming with them, according to the Ph. Centralh. emulsions.—*Amer. Pharmacist.*

Injections of Lemon-juice in Severe Epistaxis.—The Centralb. für klin. Med. of June 15th, says that Dr. Fauchon, of Orléans, France, obtained immediate relief in a severe case of epistaxis by the injection of the juice of a freshly squeezed lemon. So far he has only had the one occasion to use the remedy.

Menthol in Asthma.—Jores (Ther. Monatshefte) uses menthol, a twenty per cent. solution, as an inhalation for asthma. Immediate relief was obtained in every instance.

Medical Progress.

NORMAL LIQUIDS.—A close study of the pharmacopœial process for making fluid extracts will convince anyone that there must be a great variation in the strength of the finished product to correspond with the variation found in the various specimens of the crude drug. It matters not how much of the woody fibre and other coarse and inert constituents of the drug are consumed in the manufacture. What we desire is that the result shall contain a definite and invariable proportion of the active principles of the drug upon which it depends for its medicinal effects. We wish to know that there shall not be too much of these active principles in the specimen given, so as to surprise us with its toxic effects; or too little, so as to fail us at a critical time. When the present pharmacopœial process for fluid extracts was adopted, it was thought that the ultimatum of accuracy had been reached. But now we see that this fact of variability in different specimens of crude drugs was entirely overlooked and unprovided for. The science of pharmacy, like all other sciences, is constantly moving on towards the goal of perfection.

Practical observation but confirms our opinion, and we might cite innumerable cases where untoward effects have resulted from the administration of fluid extracts, presumably prepared with due regard to the published instructions.

A single example will forcibly illustrate this matter, and it only shows what has taken place in numberless instances. A physician prescribed fluid extract of conium, and instructed his patient, a young lady of perhaps twenty years, to gradually increase the dose until its characteristic physiological effect was produced. She soon consumed the fluidounce originally prescribed, and had the bottle refilled. The druggist possessed just the required quantity of the preparation originally sent out to supply this second requisition, and at once replenished his stock, this time getting hold of P., D. & Co.'s fluid extract. The patient found it necessary to renew the prescription a second time, and the third supply was, of course, from the druggist's new stock. She was, naturally, ignorant of any difference in strength, and continued with the dose which she had previously taken. The result was that she very shortly experienced the full toxic effects of the drug. Her physician was summoned post haste, and had considerable difficulty in saving her life.

Now we have no reason to believe but that the manufacturer of the first fluid extract had followed all the requirement of the pharmacopœia; that is, he used a drug of "average quality." This term, "average quality," covers a multitude of sins. We find, for example, supplies of belladonna leaves that are, to all appearances, uniform in character, but which, upon assay show a difference in alkaloidal strength of several hundred per cent. We occasionally find leaves containing as low as 0.25 per cent. of total alkaloids, and again specimens yielding 0.75 per cent.

Hearing of a class of preparations known as normal liquids, prepared by Parke, Davis & Co., we determined to try them, and accordingly sent for a supply. These are preparations resembling fluid extracts, but prepared from drugs of assayed strength; hence, the normal liquids contain a definite and invariable alkaloidal, or glucosidal strength. We have now made sufficient test of them to be perfectly satisfied as to their advantages. Their normal liquid ergot is so pure that you get the physiological effects with a very small quantity. Their normal liquid aconite is always ready and reliable, but must be used with the care made necessary by its strength; and so on through the entire list—belladonna, cannabis indica, nux vomica, veratrum viride, stramonium, digitalis, conium, hyoscyamus, ipecacuanha, etc.

The advantages we see in these preparations may be summed up as follows:

1. Uniformity of strength; you know just what you can do with them.

2. Their normal standard of strength, thereby giving smaller bulk, render them very convenient to carry. A full supply can be put into a pocket case.

3. This normal strength makes them easier and pleasanter of administration, and also more convenient for incorporation in mixtures.

They go far towards helping to make the practice of medicine an exact science and art. —*Med. World*, July, 1889.

JAMBUL IN DIABETES.—Dr. C. Graeser, of Bonn, publishes in the Centralblatt für Klinische Medicin, a highly-interesting account of a series of experiments with the extract of the fruit of *Syzygium jambolanum* on dogs, which had previously been made diabetic by the administration of phloridzin. The results of these experiments, made at the Pharmacological Institute of the University of Bonn, will be received with all the more interest as the opinions on the value of jambul seeds are divided.

Dr. Graeser thought that the best way of studying the physiological and therapeutic action of the new drug was to administer it to dogs which had artificially been made diabetic by a method introduced by V. Mehring, who found that artificial diabetes can at any moment be produced in dogs by the administration of phloridzin.

A young dog of 2,700 to 4,800 grammes body weight, to which 2.5 to 4.8 grammes of phloridzin (1 gramme to 1 kilo. body weight) have been given, in the course of a day will show an excretion of sugar, lasting for twenty four to thirty hours, and amounting to 5.89 to 12.45 grammes. Graeser first gave the daily dose of phloridzin, but later on he split the quantity into doses of 1 gramme given every two to three hours. In both cases the excretion of sugar was the same. Diarrhœa was caused by phloridzin in three cases. After Graeser had experimented for some time with phloridzin alone he began to administer simultaneously phloridzin and extract of *Syzygium jambolanum*. The latter was given before, along with, or after phloridzin, and invariably had

the effect of reducing the expected excretion of sugar most considerably. This reduction amounted to at least half, in some cases even to nine-tenths, of the quantity of sugar which would have resulted had phloridzin alone been given. At the same time the duration of the diabetes was shortened. Dogs, which under phloridzin alone had excreted 5.89 to 12.45 grammes of sugar, showed under the jambul treatment a maximum excretion of 2.906 grammes of sugar, and a minimum excretion of 1.5 gramme.

As jambul showed such a powerful effect on the artificially-produced diabetes, it may be anticipated that when given at the proper time and in a large dose it will entirely prevent the excretion of sugar.

It is not yet known how jambul given in large doses acts on the pathological diabetes mellitus of man. But it is well worth trying. The experiments on man are all the more justified as no ill effect has ever yet been produced by the new drug. A favorable effect of such experiments would prove that phloridzin diabetes and pathological diabetes are of a similar nature.

In all the animals on which Graeser experimented, no signs of any secondary effects of jambul extract were observed, not even after doses of 18 grammes. In one case diarrhœa set in, which, as further experiments proved, was caused by phloridzin and not by jambul.

As the fruit contains great quantities of starch, it was thought advisable to eliminate this as much as possible in preparing the extract. Several extracts were prepared out of the whole fruit, or solely out of the kernel, or solely out of the pericarp; 100 grammes of the fruit gave 16½ grammes kernel extract, and 11¾ grammes pericarp extract. The most given in one single dose was 6 grammes, the maximum daily dose 18 grammes

Whether the active principle is contained in the pericarp or kernel cannot as yet be decided to a certainty. Probably it is contained in both, but to a greater extent in the pericarp.

From the long series of experiments which he has made, Graeser draws the following conclusions:

1. Phloridzin diabetes is considerably lessened by jambul extract.

2. Jambul extract is non-poisonous, and does not cause any ill effect

3. The active principle contained in jambul is not yet known. It will have to be determined by careful analysis and further experiments.—*Chemist and Druggist*, July 20, 1889.

A Preliminary Note on the Use of Eucalyptus in Headache.—A brief history of the following cases, where the use of oil of eucalyptus was beneficial in relieving headache of various types after other means had failed, is here put on record in order that others may try this remedy as a therapeutic measure in a class of cases in which it has been used with asserted success, but certainly without extended trial. Our own attention was called to this use of the oil of eucalyptus on account of the markedly beneficial effect in Case 1, presently to be described, where it was exhibited to control headache believed to be of malarial origin, quinine having failed. The sudden and surprising improvement which followed its use led us to employ it in another form of functional headache not due to eye-strain or similar removable cause.

Case 1.—Susan B., æt. 48, single. Marked history of malaria and rheumatism. Formerly had severe head-pains once in two months, lately violent occipital headache every other day, with zig-zag lines and hallucinations as prodromes, entirely unrelieved by quinine. With the exhibition of five minims of the oil of eucalyptus six times a day, the headache completely disappeared. Examination of the eyes revealed slight refractory error, the correction of which did not alleviate the pain.

The authors cite eight cases in all, favorable to their claims as to the efficacy of eucalyptus, and conclude their consideration of the subject as follows:

We have given the histories of these eight cases in which the results are sufficiently definite to stimulate further trial of this remedy. We are employing the drug in a number of cases, in which we are not yet in a position definitely to state the result; in others we know that relief has been afforded. Dr. Weir Mitchell and Dr. Wharton Sinkler, of the Infirmary staff, have employed the drug in like cases with benefit. The latter has used it in three cases with decided relief; in one, in a case of long-standing migrain, it was the sole medicine for five or six weeks. In this case the paroxysms, which were right supraorbital and severe, were materially shortened and the intervals lengthened.

Eucalyptus has been used with asserted success in migrain and other forms of neuralgia as mentioned above. In our experience it appears to be of most service in the headaches of congestive type; in one case where indiscretion of diet precipitated an attack, the drug did not appear to be of use, although it relieved other seizures. In this and other of our cases the drug acted more beneficially when given at the very onset of the attack than after full development of the paroxysm, and we would suggest its trial as early as possible in the seizure, especially when there is a long prodromal period.

The question has arisen: Are the headaches of a malarial origin, that are relieved by this drug, or has it some other mode of action? In the first case the evidence of malaria is undoubted, in none of the other cases is it positive, and in some not at all probable. We intend, in a future paper, to give the results of further trial with the oil of eucalyptus, and hope to be able to state more definitely the type of headache in which the most relief may be anticipated. In two instances our results were entirely negative, in both an organic lesion existed, the one in the alimentary canal, the other in the ovaries. We have used the drug in one case of ciliary neuralgia without effect and intend to give it trial in other types of neuralgia.—Drs M. J. Lewis and G. E. De Schweintz, in the *Medical News*.

The Recognition of Vulvo-vaginal Inflammation in Children.—Dr. F. Spaeth, of Hamburg, in an interesting article on this subject, published in the Münchener Medicinische Wochenschrift for May 28th, arrives at certain conclusions which are of considerable practical interest, especially from a medico-

egal standpoint. He shows that since the discovery of Neisser's gonococcus it has been recognized that many cases of vulvo-vaginal inflammation in children which before would have been set down as of unknown origin, or regarded purely as complications of the acute exanthemata, are really due to specific infection. Fraenkel reported 84 cases occurring in 1881 in the Hamburg General Hospital during an epidemic of scarlet fever, but did not seem to recognize the specific character of the discharge, although he constantly found in it a coccus that closely resembled Neisser's. Cseir, who observed a similar epidemic, not only found the specific coccus, but proved that the discharge was gonorrheal, since it produced the characteristic ophthalmia. Hofmokl has recently confirmed the latter's statements. Spaeth's cases were 21 in number, the patients' ages ranging from 3 to 11 years; in 14 cases Neisser's coccus was found in the discharge, and in every instance the urethral mucous membrane was involved in the inflammatory process, while in the 7 children with non-specific leucorrhœa the urethra was not affected. The latter canal seems to be the favorite seat of the gonococcus; hence the inflammation is most severe and persistent here.

In order to establish the diagnosis of gonorrhea in little girls, it is only necessary to irrigate the vagina thoroughly, then to press a drop of pus from the urethra, and subject it to microscopical examination. The source of infection is not easy to discover. In one-half of the writer's cases the mother had gonorrhœa. There is no doubt that the epidemics which occur in families and hospitals, in which the disease is frequently regarded as a complication of scarlet fever, when it is really a concomitant, are due to the use of infected clothing, sponges, *pots de chambre*, or thermometers. Impure connection is a comparatively infrequent cause. This is important in view of the fact that suspicion is sometimes directed toward an innocent man, who may have gonorrhea at the time when he is accused of assaulting a child. Even if the vulvo-vaginal inflammation in the latter is proved to be specific in character, the probability of the infection being transmitted through one of the above mentioned media should render a medical witness very cautious about giving a decided opinion as to its exact source in a given instance.—*N. Y. Med. Journal.*

Local Application of Chloroform in Epididymitis.—Dr. Theodore Clemens, of Frankfort, in an interesting paper communicated to the Allgemeine Medicinische Central Zeitung, describes the great benefit he has obtained in cases of epididymitis, both specific and non-specific, by means of chloroform locally applied. He regards as most unsatisfactory the treatment of the affection by other methods as compared with his own, which he has employed now for a great many years. It consists in laying some cotton wool, saturated with chloroform and spirit, at the bottom of a large glass vessel, into which the genitals are then put and packed round with dry cotton wool, the buttocks and thighs forming a cover, this application being continued for from 15 to 25 minutes, and repeated two or three times a day. Pathologically, he considers venous congestion of the epididymis and the cord, through retention of semen, a predisposing cause of the disease. He also considers epididymitis as very likely to occur when gonorrhœa has been contracted in excessive venery. He mentions a case of treatment by chloroform 36 years ago, not of epididymitis, but of periodical "heat" occurring in the human subject. The man used to suffer periodically from a form of orchitis, during which the testes felt hot and swollen, and the plexus pampiniformis was full and turgescent like a varicocele. He was ordered the local application of chloroform three times a day, from 15 to 25 minutes each time, but the first time he bore the chloroform for nearly 35 minutes, after which the pain of the severe attack completely ceased and the swelling considerably decreased. This treatment lasted three days, during which time he was able to walk about, the cotton wool which had been used for the chloroform being put into the suspensory bandage, and the testes covered with it. After that, both the swelling and sensibility disappeared. Another case is mentioned, where epididymitis had been caused by the continuous pressure of a rubber handle on the hypogastrium, in which similar treatment proved entirely successful. Again, a class of cases that is usually very difficult to treat—viz., that of gonorrhœal orchitis—seems to have proved fairly tractable when managed with the help of chloroform. Here one of the first signs of improvement was frequently the re-establishment of an old discharge, which was soon cured simultaneously with the epididymitis.

The Kola Nut—Its Commercial, Sociological and Medicinal Value.—Dr. Bernhard Schuchardt, of Gotha, provides us with a synopsis of all that is worth knowing in respect to the kola tree, sterculia acuminata, the first reliable information about which was brought to Europe in the sixteenth century by travellers. We cannot go more into detail here, and must confine ourselves to the fact that, according to all reports, the kola nut forms a valued stimulant and luxury in all the regions of Africa. According to Staudinger, it is improbable that the kola nut is used as a nutrient, but it is used as a sleep dispelling remedy by several of the negro tribes. Armstrong found the nut serviceable in clarifying beer and spirits. Besides, it is supposed to ward off weariness, and to have an action similar to that of coca. It is used as a preventive against habituation in alcoholic indulgences, and finally, possesses reputation as an aphrodisiac.

But direct medical effects in various morbid conditions are also ascribed to the nut by the Africans, who use it as a stomachic, for streugthening the gums, for retaining the teeth (continued chewing gives a beautiful red color to the lips, as with the areca), and in hepatic affections.

So far as the chemical composition and physiological action are concerned, the proportion of caffeine (over 2 per cent.) is chiefly to be considered; in addition, perhaps the theobromine and the tannin. The other constituents are sugar, gum, albumen, fat, cellulose, chlorophyll, amylum and the fixed salts. Kola should accordingly be employed as a diuretic in heart diseases, and especially in conditions

of feeble heart; in neuralgias; in severe fevers of adynamic character and during the period of convalescence after the latter; in exhausting diseases; in dyspepsias; chronic and obstinate diarrhœas; in cholera; and, finally, as an excitant and exhilarant in cases of mental depression.—*Deutsch Med. Zeitung.*

On the Treatment of Conjunctivitis Granulosa with Infusion of Jequirity.—Dr. Basevi Vittorio, the author, concludes from a study of ten cases of conjunctivitis granulosa:

1. The jequirity infusion must be employed in the forms of corneal pannus resulting from false granulations of a chronic character. In cicatrical trachoma, a favorable effect is obtained on the corneal pannus even if the physician does not succeed in modifying the condition of the conjunctivitis palpebrallis.

2. Care must always be taken to employ an infusion as fresh as possible and prepared in the cold.

3. The jequirity powder must be employed.

4 It is well to use a local thermometer during the inflammatory process produced by jequirity. It permits one to follow with great accuracy the course of the morbid process.

5. The jequirity baths must be often and persistently repeated at intervals of several days. After termination of jequirity treatment, the complementary treatment is especially indicated, without which danger is incurred of losing the entire effect.

6. The jequirity infusion is not alone sufficient for the cure of granulations; but by arousing a catarrhal process, is capable of transferring infiltrated cells to the surface, in order through them to produce in connection with the therapeutic agents a perceptible improvement, even if not a complete cure, of the granulations.—*Deutsch Med. Zeitung.*

Is Antifebrin Dangerous.—Dr. A. L. Taylor writes as follows to the Philadelphia Times and Register: "Various authorities agree in pronouncing antifebrin a safe and reliable antipyretic, useful in quickly reducing temperature without any untoward results. Yet my experience does not justify me in coinciding with my contemporaries, as results will show. Having had personally but limited experience with the drug, I concluded recently to test its properties in a case of infantile fever by administering a four-grain dose to a child three years of age, whose temperature persistently remained at from 101° to 103°. Hardly had one-half hour elapsed when I was summoned to the bedside to find that the dose had done its work effectually, as temperature was below normal, with impending collapse indicated by cold extremities, feeble respiration and labored heart action. Prompt administration of restoratives prevented the impending result and the patient was eventually restored to health, but under other treatment than that afforded by antifebrin. As no organic heart derangement existed, and the drug was supposed to be a prime article, I am at a loss to account for its peculiar action in this instance, unless some idiosyncrasy of the patient existed, or the much vaunted antipyretic properties of the drug are of a dangerous character. If so, it should be administered with circumspection."—*Drug. Circular.*

On the Treatment of Variola and Varioloid with Cocaine.—Dr. Ory reports in the Rev. Gén. de Clin. et de Thér., No. 9, that in a case of severe confluent variola, improvement ensued and the eruption began to disappear immediately after the patient had taken more than ten pills of 0.002 gr. each in one night. After a few days, 10 drops of a 5 per cent. solution of cocaine muriate was given four times a day, and the patient was well inside of 10 days. In another case a cure of varioloid was effected under the cocaine treatment in five days after the appearance of the pustules. A third case of acute hæmorrhagic varioloid got well without scars, under the cocaine treatment, within five days. Also in two children (8 drops of a 1 per cent. solution each, four times a day), a cure of varioloid ensued under the same therapy in five and six days. As the blisters dried up immediately after the use of cocaine in all cases, it could not be determined with certainty whether, in one case or another, the disease was not variola. Cocaine neutralizing the variola virus in the infected organism so rapidly, Ory is of the opinion that it is capable also of preventing its development in the healthy organism, and advises its use as a preventive for those surrounding variola patients.—*Wiener Medicinische Wochenschrift*, No. 22, 1889.

Baruch on Nocturnal Enuresis.—The author, who has had an extensive experience with this disorder at the New York Juvenile Asylum, advocates the use of atropine, instead of belladonna, and urges the necessity of bringing the system completely under its influence. Dr. Baruch orders a sufficient quantity of atropia in the afternoon at 4, and at bedtime (7), to insure dilatation of the pupil; $\frac{1}{100}$ of a grain for children from six to ten, and double the quansity for children up to fourteen, administered at these hours, usually suffices. If the pupils are widely dilated when the next dose is due, it is omitted. The essential point to be clearly impressed upon the parent or attendant is, that the pupil must be dilated during the sleeping hours, as an indication that the system is under the influence of atropia. The results with this method of using an old remedy have been very satisfactory in the practice of the author.—*Arch. of Ped.*

Treatment of Cystitis.—Chronic cystitis has been treated with great success by Dr. V. Mosetig-Moorhof, of Vienna, with iodoform injections. His method is as follows:

The bladder having been irrigated with moderately hot water, an injection of the following emulsion should be made:

℞ Iodoform, 50 parts.
Glycerin, 40 parts.
Distilled water, 10 parts.
Tragacanth gum, ½ part.

M. Sig.—One teaspoonful to a pint of lukewarm water, well stirred, for one injection. Injections should be made every third day.

—*Wiener med. Presse*, No. 28, 1889; *Medical News*, Aug. 3, 1889.

The Medical Age.

Vol. VII. DETROIT, AUG. 26, 1889. No. 16.

Original Articles.

A CLINICAL LECTURE—EPILEPSY, HYSTERIA AND MORPHIO-MANIA.

BY PROF. J. M. CHARCOT, PARIS, FRANCE.

The patient before you, presents for consideration three superimposed nosographical elements, which are combined without reciprocally modifying each other. They are: True epilepsy, hystero-epilepsy, and morphio-mania.

From this combination results a symptomatic complexus—a seemingly inextricable problem; and I shall endeavor by analysis to separate the three, and show you that there is no fusion or hybridity.

The man is small, thick-set, and of sad, forlorn appearance, which is nothing strange, since he is a morphinist. He is the son of a tuberculous father and epileptic mother; one of his uncles is insane; of two sisters, one is an epileptic; and a brother of his mother is a nervous patient. This suffices to show he is of a decidedly nervous stock.

At the age of seven years he began to have epileptic fits in the night, and an average of three per week, which, however, were diminished under the influence of bromide. This is a fact to which I wish to call attention, as it belongs to true epilepsy. Until the age of 20 the bromide was continued at intervals. At this time he suffered from typhoid fever, with grave cerebral complications, followed by long and painful convalescence, and he became melancholic; at the same time the fits returned with new intensity, and he was brought to us. That he is an epileptic, there is no doubt: the fits coming on in the night time (the patient having no remembrance of them in the morning,) the absence of prodromes, the biting of the tongue, the wetting of the bed, all are characteristics of true epilepsy. Guided by the labors of LEPINE and MAIRET, my clinical chief, GILLES DE LA TOURETTE, has studied the urine from the standpoint of waste of the organism, and has found, after the fits, that the excretion of urea is increased from 21 to 36 grammes, and of phosphates from 2 to 2.65 grammes, with elevation of the temperature of the body. This increase of organic waste is never observed in hystero-epilepsy, and shows that between the two affections there is nothing in common. Here we see a typical epilepsy, influenced neither by the hysteria or morphiomania: and yet the existence of these two neuroses, superimposed upon the epilepsy, is manifest.

The man is completely anæsthetic and analgesic. He has lost cutaneous sensibility over the whole surface of the body, except the sole of the foot, where sensation is simply blunted, and in the sub-umbilical region where it is exaggerated; neither prickings, heat or cold are felt. The muscular sense is affected, but not completely abolished: and while the patient remains standing with his eyes shut, he loses all consciousness of the position of his hands. Here is a series of symptoms which are not met with in epilepsy, but are encountered in certain organic diseases, syringo-myelitis for instance, and suggest hysteria. Also this man has completely lost the sense of smell and taste; hearing is dulled; and there is considerable narrowing of the visual field, symptoms also peculiar to hysteria. It has been claimed by OPPENHEIM, and others, that we observe these symptoms in epilepsy; but this is an error. Attentive examination in such cases invariably enables one to discover, side by side with epilepsy, the stigmata peculiar to hysteria, even when real attacks do not exist. Regarding the area of sub-umbilical hyperæsthesia of which I have spoken, we have there a zone of general hyperæsthesia, and likewise two patches corresponding to the female ovarian region, which may be considered as true hysterogenous points.

Strong pressure over these zones gives the patient a fixed, wild look, his speech is interrupted, he has a painful sensation of strangulation, and complains of throbbing in the head and an appearance before the eyes of a luminous cog-wheel, probably a scintillant scotoma. There is no doubt that prolonged compression would induce a hysterical paroxysm no way related to epilepsy, for we cannot provoke seizures of the latter at will.

The existence of these points, even in the absence of spontaneous attacks, is sufficient warrant for affirming the existence of hysteria. But is he really free from spontaneous attacks? The patient tells me that following his typhoid fever he experienced certain nervous crises such as he had never before known, which he called *day fits*. These crises were announced by the sensation of a bar pressing over the stomach, and a ball rising in the throat, permitting just time enough to save himself by lying down.

During these crises he cries out; it takes two or three men to hold him; and he neither bites the tongue nor wets the bed. In the night, on the contrary, he never executes the great movements characteristic of hysteria major. Is not then, this clearly hysteria? Here permit me to protest against this nomenclature of epilepsy and hystero-epilepsy, which only engenders confusion. There is really no relation between epilepsy and hysteria; hence there can be no such a thing as hystero-epilepsy with mixed crises or hystero-epilepsy with separate crises; that there are patients like this one who have epileptic seizures at night and hysterical paroxysms during the day, we admit, but there is never a combination of the two existing simultaneously, and in grand hysteria there is *only the semblance* of epilepsy.

An epileptic taken suddenly about three o'clock in the morning, utters a cry or noise, his muscles stiffen, eyes are distorted—strabismus with the eye ball turned upward. This is the tonic phase which is succeeded by one of clonic character, when the voluntary muscles are rapidly convulsed, the tongue bitten, urine passed involuntarily, and in a few seconds followed by stertorous sleep.

Hystero-epilepsy is not like this. In a Berlin paper I observed the counterpart of the now familliar tableau, the patient being a soldier, who came under the observation of ANDRE, surgeon-major at Carlsruche. I will remark that in the German army, as in the French, there are hysterical soldiers. This soldier was desirous of being present at the funeral of the Duke of Baden, but was prevented, thereupon excessive vexation resulted in a hysterical attack. The description of these attacks is very complete: an aura marked by headache, tinnitus aurum, fixedness of the eyes, then a tonic followed by clonic phase. So far, this resembles epilepsy, but even in this period, if one calls out vehemently to the patient, he can sometimes arrest the attack, a result that can never be obtained in epilepsy; moreover, the patient never bites his tongue nor wets his bed. Soon supervenes a new phase, the phase of grand movements, arching movements, and movements of salutations; and the attack finishes with a period of hallucinations. This is hystero-epilepsy, but there is no real epilepsy, hence the term should be entirely abandoned.

M. DE LA TOURETTE has discovered an increase in the waste products in the urine after hysterical attacks, and arrived at results that, if verified, will constitute a veritable discovery. Instead of an augmentation of urea and phosphates, he has found notable diminution; the former falls from 18 to 13 grammes, and the phosphates from 2.50 to 1.60 grammes. If these results prove the rule, they will furnish decisive argument in support of the doctrine I have long maintained, viz., that there is nothing in common between hysteria and epilepsy; and while the two may have a gross appearance in resemblance, they are fundamentally different.

I come now to the third nosological element presented by our patient. This man is a morphio-maniac. Nervous persons contract this deplorable habit with facility. Their physician at some time or other has employed a hypodermic injection to allay pain, and perhaps by culpable negligence has left his syringe to use upon return of pain, or they may procure one, and resort to it five or six times a day, until a habit is fastened, and it is impossible to discontinue without poignant suffering. Nevertheless, morphio-mania is not so much the *amount* consumed per diem, as the repetition of the injections at frequent and regular intervals.

Our patient became a morphio-maniac after his typhoid fever, when he had hyperæmia of the left side. He was advised by his sister to employ morphine subcutaneously, and though at first he experienced discomfort (nausea and vomiting) he persevered, and having got rid of his pains, still continued the soothing injections. He was thus soon able to consume, according to his own statement, thirty grains daily, though there is good reason to believe the apothecary whom he patronized, looked well to his own interests and the health of the patient, and dispensed a much smaller amount than asked for. We soon found that five grains sufficed to keep him in his usual trim, the first injection being made between seven and eight o'clock in the morning; the second at noon; the third at 3 P. M.; the fourth at 6, and the fifth at 8; while at midnight twenty drops of laudanum is given by mouth. The total quantity of morphine which he thus uses is about five grains.

The period of euphorea which follows the injection, lasts four or five hours; patients always plan to have these periods run into each other so that they may remain comfortable at all times; and while under the influence of the drug they are perfectly calm—but exhibit a leaden, ashy hue, with slight trembling—so that it would be difficult to tell they were morphinists. If the period of euphorea passes by without renewing the injection, there is an outburst of a series of phenomena known as *abstinence symptoms;* the trembling increases, the oscillations becomes more numerous and more marked; there are cold sweats, and tendency to fainting; diarrhœa, with frequently as many as four or five stools in succession; and it is impossible for the sufferers to eat or drink; they become sour, cross and insolent, all of which is displaced by returning to the drug.

Our patient is a typical morphio-maniac; along with his epilepsy and hysteria he has given himself another disease, certainly the most painful of all.

What is to be done in such a case? Whenever a patient is a morphio-maniac, it is of little use to give other medicine. It would be necessary, first, to wean him from his morphine. We have two ways of accomplishing this: to stop the drug completely and let the patient howl and storm for three or four days, or to replace the morphine by equivalent doses of laudanum, and gradually taper off. But here we have to do with a patient that is at the same time a victim of epilepsy and hysteria, and if we relieve him of the morphine habit we still have two other diseases to contend with, and with little chance of success. Such being the case, no treatment has been attempted; any hope of a cure is certainly forlorn.

TUBERCULAR JOINT DISEASE.*

BY E. A. HOADLEY, CHICAGO, PROFESSOR OF ORTHOPÆDIC SURGERY IN THE COLLEGE OF PHYSICIANS AND SURGEONS, CHICAGO, ILLINOIS.

This, is by far the most common as well as the most disastrous joint affection in early life, and is characterized by very slow development, perhaps through many years, without interfering seriously with the usefulness of the part. Usually, the tubercular granulations slowly but surely progress from the point of origin, involving consecutively all the tissues that enter iuto the formation of the joint, which degeuerate into small non-microbic abscesses. These abscesses communicate with one another, with the joint, and finally with the outside, and as they are opened, spontaneously or otherwise, permitting of more or less free drainage, the active symptoms subside with apparent improvement. As cavities become contaminated with pus microbes, suppurative degeueration at other points occur, other abscesses are formed, and a suppurative tubercular condition is established that continues through a period of years (from 1 to 20), until the joint, useless, shrunken and deformed, fiually dries up. Tubercular inflammations of joints are also characterized by the rapidity with which they run their destructive course. Three or four weeks are sufficient, if complicated with staphylococcus, to completely destroy synovial membrane, ligameuts, cartilages, bones, rendering the entire joint a chaotic mass which communicates with the outside by several openings. Between these extremes there is every variety and condition.

The disease may have its starting-point in the epiphyseal cartilage, in the synovial membrane, or iu the bones themselves, but never in the articular cartilage or the articular ligaments: both the latter, however, are quickly destroyed by invasion. In 77 per cent. of all cases, whether rapid or slow, the affection remains local, in the remaining 23 per cent. tuberculosis becomes general, and the patients usually die from general, meningeal or pulmonary tuberculosis, even after the original localization at the joint has been removed.

For the development of a tubercular inflammation of a joint, two things are necessary: *First*,—The presence of the bacillus tuberculosis in the system, and; *Second*,—Some course, perhaps slight traumatism, acting as a localizing cause. Any cause that may temporarily interrupt the circulation in the capillaries, even to a very slight extent, may be sufficient to arrest the bacillus tuberculosis and furnish suitable soil for its development, and such localization gives rise to tubercular granulations which only differ from ordinary granulation tissue in that they contain bacilli, which prevent the granulations from going on to a finish—that is, to the formation of normal connective or cicatricial tissue. Granulation tissue thus formed, continues to proliferate and invade, permeate and destroy, with more or less rapidity, all the tissues in the neighborhood. They never suppurate and form pus, but may degenerate into a fluid mass that may be absorbed or evacuated; or may shrink and form a cheesy mass that is ultimately absorbed; or may exist for years in more or less abundance without material change. If, however, the micro-organisms of pus find their way into the granulations, then the formation of purulent matter will be profuse and rapid, immense abscesses resulting, the bacillus tuberculosis being materially aided in its destructive work.

Treatment—As soon as it can be demonstrated that the disease is a progressive one, it becomes a case for operation. If in the early stage or slower form of the disease, after two or three months of rest to the joint by fixation dressing and general treatment, there be no improvement, or if there is an appreciable advance, then operation is imperatively demanded. In the more rapid cases, a much shorter time will suffice to determine whether the disease will go on to the destruction of the joint or not, and the earlier the operation, the better the chance of saving motion to the joint, and the less liable will the patient be to inoculation and general tuberculosis.

To illustrate the principles of tubercular joiut surgery, I will refer to a couple of cases.

1. H. A., a girl of 11 years, of fair, general development, good family history, had never been ill worthy of note (yet was never regarded as being a strong child), commenced to be lame in the right ankle joiut without substantial reason. The lameness was first regarded as rheumatism; soon after a brace was applied for weak ankle, when incipient valgus became

* Read at the thirty-ninth annual meeting of the Illinois State Medical Society at Jacksonville, May 23, 1889

manifest, for which condition extreme varus was maintained for a period of three months by means of plaster dressing. When dressing was removed the case came under my care. At this time there was slight tenderness in the joint, some characteristic swelling on the inner and outer aspect, but as it was not in the least tender, I directed my attention to the development of the atrophied muscles which, in my opinion, had allowed the foot to go down and develop valgus. Two or three weeks of passive motion to joint, and massage to the muscles of the leg, were sufficient to develop a condition of things at the ankle that was unmistakable. The slight swellings at the sides of the joint became more prominent, more firm, and quite tender. Another rest of a month or six weeks in plaster did no good. It was then evident, after a year or more of treatment, that we had to deal with progressive tubercular synovitis. I advised operation, but as there was nothing visible that could impress the parents, it was emphatically declined, for the time at least. In the course of a month or two the swelling was more prominent and joint more tender, though when kept quiet there was little or no pain; the swelling was most marked behind the joint, filling up the hollow upon each side of the tendo Achilles, and later gradually became red upon the surface, and more exquisitely sensitive. Still with all the facts before the parents, an operation was refused. However, some weeks later I was allowed to open the very prominent and painful abscess at the back of the joint, when a drainage tube was passed through in front of the tendon from side to side. This abscess contained the sour and curdled milk-looking fluid, and had not been contaminated with staphylococci; but it was only a few days before the track of the drainage tube was secreting pus in abundance, and tubercular granulation tissue sprouting out upon both sides. After explaining that this granulation tissue must be removed, I was allowed to make a slight operation, but not to interfere with the joint. All the tubercular tissue was removed from the space between the back of the joint and the tendo Achilles, and as no communication was observed to exist with the joint, it was hoped that this exarticular localization might, at least, be cured. Two weeks later it was apparent that nothing short of complete eradication of all the diseased tissue in and around the joint would result in permanent relief, for the wound was again full of tubercular granulations, discharging pus freely, and the whole joint red, tender and painful. Under the pressure of such a condition the parents were persuaded to allow a thorough operation. The day before the operation was to have been performed, the joint opened into the track of the drainage behind, the active symptoms with the pain were very much relieved, and further procedures postponed by the parents for some six weeks. The joint was then suppurating and discharging profusely, and it was evident that something had to be done or the child would soon die. The joint was opened as wide as possible upon both sides, every vestige of granulation tissue and synovial membrane cleaned out, and the joint surfaces cleaned; the bones themselves had not yet been involved, although the cartilages were eroded and in some places entirely gone. Every effort was made to render this operation aseptic, and it appeared successful for several days, when was found considerable pus indicating that the tubercular tissue had not been entirely removed, and what was left was septic. In another week or ten days the characteristic granulations made their appearance on each side at the openings left for drainage, also in the openings by the side of the tendo Achilles. Some of the suspicious granulations were scraped away four weeks after the operation, at which time there was apparently good union between the tibia and astragalus. From this time on the case progressed badly, and another operation was performed four weeks later, opening up every suspicious place and thoroughly scraping out all the granulation tissue found, cleansing the wounds as they were made with solutions of bichloride 1-2000. The tibiofibular articulation was found to be the seat of active disease, although it was believed at the time of the main operation that all of the synovial membrane in this situation was removed. The duplicature of synovial membrane that passes up between the tibia and fibula makes the ankle joint one of the most difficult for arthrectomy; and in most cases where the operation is performed for tubercular synovitis, if the disease recurs, it is at this point, and in consequence of overlooking some small portion of synovial membrane. At the present time there is every prospect that permanent cure will follow this last operation, though another slight one may possibly be necessary.

2. This illustrates a more rapid course of the disease A girl of nine years, well developed, no hereditary predisposition, no well known exciting causes, attacked with inflammation of the ankle joint, which progressed rapidly, and was opened on the outside of the joint in two weeks. This opening soon closed, but the inflammation progressed, and two weeks later an abscess was opened on the inside of the joint; a week or ten days later, another abscess opened spontaneously in front; and eight weeks from the attack I was called to see the case with PROFESSOR C. W. EARLE, under whose care she had been placed. On examination it was found the joint was completely disorganized, together with the astragalus, part of the scaphoid, and the lower end of the tibia. Four inches above the joint, on the front of the

tibia, was a recent spontaneous opening communicating with the medullary cavity of that bone. The existing openings were enlarged, through which, together with one small opening on the outside, the debris was removed, and the entire cavity scraped with a sharp spoon until its walls everywhere appeared to be composed of healthy tissue, regardless of what particular structures were being involved, with the exception of the anterior and posterior tibial arteries; the parts removed were the entire astragalus, a portion of the scaphoid, the greater portion of the lower four inches of the tibia, and also a considerable portion of the inner surface of the outer malleolus. The only portion left was a part of the inner malleolus connected to the shaft by a very thin splint of bone, less than one-quarter of an inch in width, and this was fractured. After placing a large drainage tube, the cavity was packed with iodoform gauze, and dressed with bichloride gauze and cotton, with the foot at a right angle to the leg, supporting all with a starch bandage. The wound, after the operation, was aseptic and remained so for several weeks, and in two months was practically healed, and the patient returned to her home in Ohio. Two and one-half months later she was apparently entirely well, and the constitutional condition was keeping pace with the improvement in the joint. In this case the patient regained her usual flesh and vigor long before the wound had perfectly healed—a rapid improvement, considering the degree of emaciation that had taken place.

In conclusion, I wish to emphasize that early, thorough, and repeated aseptic operation, is the treatment for this class of cases. There is at present but one fixed rule in regard to operation, and that to remove all the diseased tissue in whatever structure it may exist, and sacrifice nothing—that is, remove no healthy tissue—bone especially—without it is unquestionably in the way and liable by its presence to interfere with obtaining the best results. Excisions of joints, as a rule, are objectionable, because of the unnecessary amount of healthy bone removed. Complete enucleation of the synovial membrane together with such diseased portions of bone as may exist, give the best results, and the operation should be repeated as often as it becomes evident the disease is still in progress.

683 Washington Boulevard.

A PLEA FOR THE GENERAL ADOPTION OF ANÆSTHETICS IN LABOR.*

BY MARK B. SMITH, M. D., MCPHERSON, KANSAS.

This is a subject of untold interest to both the physician and the parturient patient. From the time of the first employment of ether by SIR JAS. Y. SIMPSON, down to the present, there are many, especially the teachers of the Romish Church, who oppose any and all means that will relieve the pangs of child birth, basing their opposition on Scriptural grounds ("In pain and travail shalt thou bring forth"), apparently forgetting that the first parturition recorded in Holy Writ, and the only one in which man was the chief participant, points directly to such relief: "God caused a deep sleep to fall upon Adam!"

Among other arguments we find the following: "The effect would lessen or abolish maternal instinct;" "It is immoral, as producing a kind of intoxication;" "Dangerous, because of peculiar idiocyncrasies ond organic disease;" "Because it is cumulative, sacreligious, an attempt to set aside the decree of Providence, and interferes with Divine justice." All this in the light of the present, seems superstitious and absurd, yet there was this excuse: It was a new remedy, and the habit of theorising without practical demonstration, was much more prevalent forty years ago than now, and facts prove that, owing to the brilliancy of the discovery, there were many exaggerations.

In Vol. I, of the Transactions of the American Med. Association, the Committee on Obstetrics report unqualifiedly that chloroform given in small quantities during confinement, is safe in *all* cases. Up to this time it had been employed in something over 2000 cases without a single untoward result. DR. HENRY MILLER believed chloroform the safest and most manageable of all anæsthetics, and if not used to a degree beyond the absolute relief of pain, was wholly unattended by danger.

Anæsthetics in midwifery was urged by some of our most prominent obstetricians as early as 1857, and since that time nearly all have added their approval. DR. GEO. JOHNSON, a careful and accurate observer, who has made a study of comparative statistics, shows that the death rate under chloroform has *not* been increased or convalescence prolonged.

The factor that seemed to do more to influence the progress of obstetrical anæsthesia in Great Britain, was its acceptance by the Queen, when Prince Leopold was born, chloroform being administered with gratifying effects, and with the highest praises from Her Majesty. The great mistake under which those labored who most opposed the method was, the belief that to annul labor pain, profound anæsthesia was necessary; whereas, all that is necessary is, so to speak, semi-anæsthesia

* We regret exceedingly that want of space and the crowded condition of the editorial drawer, compel us to omit the historical points in DR. SMITH's excellent article which trace the rise of anæsthetics, opposition thereto, and comparisons made between ether and chloroform.—ED.

Dr. Miller says that "anæsthesia in natural labor is the greatest boon yet discovered for the relief of suffering womankind." Certain it is that the physician who uses chloroform in natural as well as preternatural labors, will not only be satisfied himself, but will forever establish himself in the good will of his patients.

Chloroform being, recognized by our ablest physicians as the best anæsthetic agent for this purpose, it may not be amiss to consider a few of the physiological actions of the drug. It is unnecessary here to describe the three stages of anæsthesia which are laid down in text books. It is important, however, in this connection, to observe that chloroform acts principally on the brain or spinal cord, and lastly, upon the peripheral nerves; acts first upon the lower end of the spinal cord, then the dorsal and the cervical portions in succession, and lastly the brain. It is regularly progressive from below upward, therefore one understands why pain is relieved before consciousness is lost, and that uterine contractions are not interfered with during its proper administration.

Dr. Lusk reported a case in his Obstetrical Clinic, where dangerous symptoms were experienced after deep inspirations from a handkerchief freshly saturated with chloroform placed in a paper cone, which were probably due to the manner of administration rather than the drug itself, for the doctor opined the whole trouble arose from crowding the cone down upon the face by the assistant, thus shutting out all air and concentrating the vapor. According to Snow and Simpson's statistics, men are naturally more susceptible to the influence of the drug than are women, in the proportion of 2 to 1, while in the pregnant state there seems to be a peculiar immunity from danger which does not exist in the unimpregnated. I have used chloroform in a little over 225 cases with the most happy results in every instance. I have delivered seven pairs of twins among this number with most flattering success. I feel certain had it not been for chloroform in the following case, the patient would have died. Mrs. B. age 22, primipara. Was called to see her about two weeks before confinement when she was suffering from great dyspnœa. On examination found her with most intense anasarca; urine scanty, colorless, and containing about 33 per cent. of albumen; tongue dry and fissured; extreme thirst; temperature 100.6; pulse 120; great distress after taking nourishment; bowels constipated. I made an unfavorable prognosis but commenced treatment in the ordinary way—supportive, diuretic, diaphoretic, etc. In ten days her size was reduced so that she had some resemblance to a woman. Confinement took place the night of Sept. 17, '87. The pains began irregularly, and were very aggravating. I began giving chloroform at once, being very apprehensive of convulsions. In less than 15 minutes the contractions became regular, and increased in intensity, to the great satisfaction of both self and patient. I continued the administration with care until her last baby was born, about 9 o'clock the following morning, without a single untoward effect. After putting the patient in as comfortable a condition as possible, I left for home with a more exalted opinion of chloroform than ever before. The following morning I was summoned in haste, the messenger informing me that my patient was in a convulsion. I reached the place as quickly as possible, and at once gave chloroform and bled freely, which soon controlled the convulsions. Then removed the chloroform, when bright spots began soon to appear before her eyes, which admonished us to again resort to the anæsthetic, which was continued for about 24 hours, as every time we attempted to remove, symptoms of convulsions reappeared. After that she slowly recovered, and to-day enjoys the pleasurable company of her babies.

I believe that there are very few contraindications to the use of chloroform in labor; though, of course, when there is severe organic disease of any kind, it should be administered with proportionate care. In advanced disease of the lungs, statistics prove clearly that the agent can be given with perfect impunity and even with benefit, as is shown in M. Lucius Champinnier's case, where he gave it to a woman well advanced in tuberculosis, for four hours without intermission; the effects were so delightful that she begged for its continuance, and to gratify her he administered for an hour after the child was born, and without the slightest bad effect. Formerly it was held that if a patient had any heart trouble, chloroform could not be tolerated; but it has been scientifically proven that there is but one organic cardiac disease that contraindicates the use of the drug in parturition, and that, fatty degeneration; but even in this disease, Dr. Snow says: "A person is more likely to recover with chloroform, if the pain be severe, than without it." In all valvular disease where chloroform is properly given, it is safer than severe pain, not only in obstetrics but in all surgical operations, and causes less disturbance of the heart. Dr. Champinnier remarks: "If I recognize an organic affection of the heart without pulmonary complication, I should rather give the chloroform than to let her suffer."

Dr. Verglet Bordeau, a very reliable author, says unqualifiedly: "Disease of the heart is not a contraindication to the use of anæsthetics."

The most complete and satisfactory study of the question was by Dr. Angus McDonald, in 1878, who published a book entitled,

"The Bearings of Chronic Diseases of the Heart upon Pregnancy, Parturition and Child-birth," in which he says: "If chloroform be properly administered, I think it cannot but be useful in all cases." He also argues, as do most authors, that the straining and suffering is far more dangerous than chloroform properly administered.

Dr. FORDYCE BARKER says: "Disease of the heart, lungs, or kidneys, is an additional reason for resorting to anæsthesia in midwifery, as the vital forces are thus saved rather than exhausted." And so I might cite you others, but the authority already referred to is certainly all that one can desire.

In my experience I have been led to give chloroform almost indiscriminately in labor; and I have never had a case in which I regretted so doing. I never have had post partum hæmorrhage since I adopted the use of chloroform, save once, and that was in a case I delivered immediately upon entering the house, in which I did not use this agent. Three years later I attended the same woman and gave chloroform, and there was no hæmorrhage.

I have attended at least a dozen women who before, in confinement, always without chloroform, had post partum hæmorrhage, and suffered no undue flow when the drug was employed. Experience and observation, therefore, teach me that the agent is more likely to be attended without than with hæmorrhage, or, in other words, chloroform prevents hæmorrhage by preserving the strength of the patient during labor, which overcomes that muscular exhaustion that is inevitably present in post partum flooding.

I have never attended a single case of confinement with chloroform which was attended with sufficient laceration of the perineum to require operation, therefore, in my judgment, it prevents laceration by causing relaxation of the soft parts. I have also noticed that labor is hastened by giving the agent, and that it is seldom necessary to resort to forceps. Perhaps this can be accounted for in part, at least, because of relief from the pain, the patient being easily induced to assist expulsion. Also, I have noticed many times that when the pains were aggravating and irregular, they were at once intensified and satisfactory on administering chloroform.

The time is fast approaching when it will be as unusual to attend a case of obstetrics without anæsthetics, as it is to-day to amputate a leg without an anæsthetic. Possibly the tenor of this paper may not meet with the approval of all, but it is strictly in accord with the practice and teaching of most of the eminent obstetricians of America, England, France and Germany.

Those who are using anæsthetics in all cases of labor, with rare exceptions, are capturing the confidence of the people, and justly leaving those in the lurch who fail to adopt it.

If I succeed in inducing even one member of the profession who has not previously used chloroform in natural labor to try it, I will be abundantly remunerated for this paper.

Correspondence.

PHILADELPHIA LETTER.

Summer Diet for the Infants of the Poor.

One of the most popular subjects now being discussed by the medical press, is *Infant Feeding* during the summer months. For those unfortunate babes who must be bottle-fed, sterilizers have been devised, and the exact proportions of milk, cream, lime-water, farinaceous products, etc., calculated; also the efficiency of pepsin and pancreatin have been tested, and with increased satisfaction to physician and patient.

But the problem of feeding the sick infants of the very poor, is much more difficult, for the residents of dirty hot alleys cannot afford "sterilizers," however cheap or simple, or, if provided, would be restrained from employing through lack of time, or stupidity. Again, the ingredients are too expensive for daily use by people to whom even good milk is oft-times unknown.

The physician, in his daily rounds in a "poor district," finds the sick children fed in every conceivable way, and upon all sorts of trash, and is forced into an unequal struggle to effect even the slightest change: he speedily discovers that the human is the only maternal animal which is not endowed by Nature with instinctive knowledge of the way to care for her offspring.

First, it is necessary to start with a good milk, and stringent laws on the subject cannot be too rigidly enforced regarding milk dealers and their supplies, for no method, however simple or satisfactory, can be of avail if the basis of the food is tainted when delivered. The plan has been suggested of establishing dairies in every city and village, which daily will sterilize and bottle milk in 6- or 8 ounce flasks, expressly for mothers residing in the vicinity, and sell at the lowest rate possible; the bottles to be returned, with a rebate, when empty. However, this plan does not seem to be feasible. In sterilizing large quantities of milk, owing to haste, carelessness, and routine, the work is not apt to be thoroughly done. Again, those who are able, would undoubtedly prefer preparing it themselves at home, while those too poor, or ignorant, are not apt to take the trouble to purchase, or if

they do, will be suspicious of the quality, not understanding what has been done, especially if the children fed thereon should not exhibit miraculous improvement; mothers very generally would regard the milk as both a medicine and food. This has been the experience regarding all food supplied the poor.

A plan I have found to answer fairly well is, a printed or written slip that is given to each family (when the members thereof are able to read), containing full and simple directions of what should be done to sterilize and prepare milk. This is not, however, always to be depended upon, for mistakes will be made, hence it is advisable also to repeat the directions carefully and in detail, and cause them to be repeated by the listener in turn—even then, despite all care, ten per cent. of the people will get matters wrong, and no amount of instruction will set them right; in such instances a neighbor, relative, or friend, may possibly be secured who will do the work, or see it done.

It is useless, however, to order cream, as generally it will not be purchased, but will simply be left out and no attempt made to supply its place, and through pride or indifference, no mention of the fact be made; even if purchased, it is apt to be unworthy of the name, so that, in the one case, the child is getting too little nourishment, and in the other a poor quality.

The following are the directions given:

"From birth to the age of six months (five to six meals in 24 hours):

1. Milk,
2. Lime-water,
3. Arrowroot-water.

} To be mixed as follows:

Take eight *tablespoonsful* of milk and four *tablespoonsful* of lime-water, and four *tablespoonsful* of arrow-root water; place in bottle with a lump of sugar. Warm the whole by standing the bottle in *warm water*. Use immediately.

In many cases teaspoons will be thought the measure instead of tablespoons, hence that word must be emphasized. On another slip of paper is placed:

"*Arrowroot-water* is made by taking *one and a half teaspoonsful* of arrowroot, rubbing it down until smooth with a *teaspoonful of cold water*. Then add *one pint of boiling water*, stirring all the time."

If this direction is placed on the same paper with the instructions for mixing food, in many cases it will be found that the teaspoonful and a half of arrowroot will be added directly to the milk and lime-water: and if this is done, the food becomes most unsuitable for the child, while the mother will claim she is following directions exactly.

To sterilize the milk, it is directed, as soon as it is obtained from the dealer, to be boiled and corked in an air-tight jar, for which purpose, a Mason's Preserving Jar (or a beer bottle, thoroughly cleansed) will do, and placed immediately in a cool place, either a cellar, or in an improvised ice-chest.

The lime-water can be obtained from any dispensary. In case the food is vomited, the proportion of lime-water is increased, and, if necessary, the arrowroot-water is left out.

Stopping the milk entirely in some cases, where the vomiting is excessive, and giving five to ten drops of brandy in water every two or three hours, often proves of benefit, returning to the milk cautiously in the next day or two.

If there is a good deal of diarrhœa with the vomiting, it is often advantageous to combine with the food an antiseptic, soothing, antacid astringent, which will check both the symptoms, neutralize any poison in the intestines, and quiet the child at the same time; for this purpose the following, favorite with Dr. MORRIS J. LEWIS, of this city, acts well; the aromatic syrup of galls giving a delightful odor to the prescription:

Bismuth. subnitrat., gr. v-x.
Tr. opii camph., ♏ii.
Sodii salicylat., gr. ½-ss.
Syr. galli aromat., q. s.
Mist. cretæ, ℥ ss.
Aquæ, q. s. ad ℥ j.

To this treatment can be added an injection, made as for starching clothes, only that when it is cool enough to bear the finger it will "run" like cream; to this is added laudanum, one drop for each year of the child's age, *i. e.*, if the child is one year old, one drop; six months old, half a drop. This can be injected twice a day, after a passage.

In commencing cases of cholera infantum which have not become well developed, the above prescription, which is strongly alkaline, is often of service; preceded by a small dose of castor oil and glycerin, it seems to have aborted the attack in a number of cases. But when the cholera infantum becomes well marked, and acids are called for, the following prescription, which is palatable, and hence easy for children to take, comes in well. It is given in the strength for a child two years old:

Acidi sulphurici dil., ♏ii.
Liquor. morphinæ sulph., ♏vii.
Elix. curacoæ, ♏v.
Aquæ, q. s. ad f. ℥ i.
Sig.: f. ℥ i every three hours.

Starch water injections come in well here, too. In the way of food, of course, while broths, etc., are the best, they are generally not prepared for the patient, even when most strenuously insisted upon; therefore, some simple form of nourishment must be devised, for which purpose egg albumen comes in well.

Take the white of an egg, stir it in a cup of cold water until as thoroughly dissolved as possible. Then the flakes which remain should be strained out, and the child fed on this every two or three hours. Five to ten drops of brandy, which is preferable to whisky, should be given every two hours. In the few cases in which rectal alimentation has been tried by me among poor children, it has met with poor success; the parents look upon it as the height of folly, that it only serves to disturb the child, and, even if they believe it is doing good, it is impossible for them to do it efficiently, either from fear of injury to the child, or from using too large quantities.

THE RATIONALE OF THE BROWN-SEQUARD TREATMENT.*

With the desire of determining the utility of of the now well-known and much abused suggestions of BROWN-SEQUARD, regarding the tonic properties of testicular fluid, of discovering its active principle, and of providing a preparation of it free from the objections inseparable from that commended by this distinguished scientist, that physicians might further experiment with it, our scientific department has undertaken a careful investigation of this fluid, and we are able now to present the following preliminary report:

A recognition of a certain correctness in BROWN-SEQUARD'S position, was unavoidable, because historical records show that the testes have been venerated for many centuries as the seat of the Life-giving principle.

Further on, corroborative evidence of the justice of this assumption is presented.

The main subject which has engrossed attention, and which is of momentous interest to the practical physician, is the possibility of obtaining the active principle in a concentrated form. The expectations entertained, seem to have been fully realized. Having discovered a base, or alkaloidal substance, in the testicles of various animals, its identification with a normal constituent of the human body and special glands, was not attended with any great difficulty.

Physiological experiments have established the fact that in salts of the alkaloid *Spermine*,† we have the cause for the stimulant effects observed by Dr. BROWN-SEQUARD. Inasmuch as the substance can be obtained in a crystalline condition, and is quite permanent, no danger of septicæmia can exist. After exposure to boiling alcohol and boiling water, bacterial agents cannot well survive. Injections made on animals, as well as in individuals, show that the claims made on behalf of this remedy, rest on a secure foundation. Although the action of various animal substances on the economy has been known for, so long, the many difficulties attending the administration of readily decomposable and highly nitrogenized bodies, has been a barrier to experimental demonstration and recognition of the true agent at issue.

The following will make clear the physiological features of the problem:

"Spermine, C_2H_5N, is the basic substance obtained by SCHREINER (1878) from semen, calf's heart, calf's liver, bull's testicles, and also from the surface of anatomical specimens kept under alcohol. Previous to this, however, it had been known for a long time under the name of "Charcot-Neumann's crystals," which are the phosphate of spermine. These peculiarly-shaped crystals have been found in the sputa of a case of emphysema with catarrh, in the bronchial discharges in acute bronchitis, as well as in sputa of chronic bronchitis, in the blood, spleen, etc., of leucocythæmics and anæmics, and in the normal marrow of human bones, as well as in human semen. Altogether it seems to have a very wide distribution, especially in certain diseases, as in leucocythæmia.

It can be prepared from fresh human semen in the following manner: The semen is washed out of linen by a little warm water, evaporated to dryness, boiled with alcohol, and the insoluble portion allowed to subside by standing some hours. The precipitate is filtered off, washed, and dried at 100°. This residue, containing the spermine phosphate, is triturated, and then extracted with warm ammoniacal water. From this solution, on slow evaporation, the phosphate crystallizes in its peculiar-shaped crystals.

The free base is obtained, on decomposing the phosphate with baryta and evaporating the filtrate, as a colorless liquid, which, on cooling, crystallizes. From alcohol it crystallizes in wavellite-shaped crystals, which readily absorb water and carbonic acid from the atmosphere. They are readily soluble in water and in absolute alcohol, almost insoluble in ether, and possess a strongly alkaline reaction. When heated with platinum it gives off thick, white fumes, and a weak ammoniacal odor. The aqueous solution of the base is precipitated by phosphomolybdic and phosphotungstic acids, tannic acid, gold and platinum chlorides.

The hydrochloride, C_2H_5N HCl, crystallizes in six-sided prisms, united in tufts, and is extremely soluble in water, almost insoluble in absolute alcohol and ether.

The aurochloride, C_2H_5N HCl $AuCl_3$, forms shining, golden-yellow, irregular plates, and when freshly precipitated it is easily soluble in water, alcohol and ether, but the dried salt is incompletely soluble in water. The aqueous solution, treated with magnesium, gives off a sperm-like odor. The platinochloride crystallizes in prisms.

The phosphate $(C_2H_5N)_2\ H_3PO_4 \cdot 3H_2O$ (?), forms prisms and slender double pyramids. It is difficultly soluble in hot water, insoluble in alcohol, easily soluble in dilute acids, alkalies, and alkali carbonates. It melts with decomposition at about 170°. It is probable that the above formula does not represent the salt as found, and from theoretical considerations LADENBURG is inclined to think that SCHREINER'S phosphate has the composition $(C_2H_8NH)_3Ca(PO_4)_2$.—*From Vaughan's & Novy's compilation on Ptomaines and Leucomaines.*"

Again, in the work of LANDOIS and STIRLING ("Text Book of Human Physiology") we read.

"*Chemical Composition.*—The *seminal fluid*, as discharged from the urethra, is mixed with the secretion of the glands of the vas deferens, Cowper's glands, and those of the prostate and with the fluid of the vesiculæ seminales. Its *reaction* is neutral or alkaline, and it contains 82 per cent. of water, serum-albumin, alkali-albuminate, nuclein, lecithin, cholesterin, fats (protamin?), phosphorized fat, salts (2 per cent.), especially phosphates of the alkalies and earths, together with sulphates, carbonates, and chlorides. The odor-

* From the Scientific Department of Parke, Davis & Co

† This substance is a leucomaine or physiological alkaloid, one of the natural products of living bodies.

ous body, whose nature is unknown, was called "*spermatin*" by Vauquelin.

Fig. 548.—Crystals from Spermatic Fluid.

Seminal Fluid.—The sticky, whitish-yellow seminal fluid, largely composed of a mixture of the secretions of the above-named glands, when exposed to the air, becomes more fluid, and on adding water it becomes gelatinous, and from it separate whitish, transparent flakes. When long exposed, it forms rhomboidal crystals, which, according to Schreiner, consist of phosphatic salts with an organic base ($C_5 H_5 N$). These *crystals* (Fig. 548) are said to be derived from the prostatic fluid, and are identical with the so-called Charcot's crystals (Fig. 144, *c*, and § 138). The prostatic fluid is thin, milky, amphoteric, or of slightly acid reaction, and is possessed of the seminal odor. The phosphoric acid necessary for the formation of the crystals is obtained from the seminal fluid. A somewhat similar odor occurs in the albumen of eggs not quite fresh. The secretion of the vesiculæ seminales of the guinea pig contains much fibrinogen (*Hensen and Landwehr.*")

Even ancient works furnish a corroboration of Dr. Sequard's results. The following from "The New London Dispensatory," by Dr. Salmon, issued in 1684, being a translation of the late edition by the Fellows of the College of Physicians, dated 1676, will show what results were attributed to the *internal* administration of materials now under consideration, even though they were prepared in a crude way, and though good interpreters were lacking.

"The Boar: The stones and pizzle (dried) for weakness of genitals and barrenness.

"The genitals of a dog are used by magicians to provoke lust.

"Castor: "It revives and quickens the spirits, etc."

"Deer: The stones dried and drunk in wine, excite lust.

"Horse: The testicles in powder excite venery, etc."

It is needless to multiply these quotations. Suffice it to say that to preparations obtained from the otter, hare, weasel, panther or leopard, badger, bear, fox (among four-legged animals), similar properties are ascribed.

Among birds, the eagle, buzzard, quail, crane and domestic cock are credited with similar stimulating properties.

In the fish kingdom, we have the oyster, cockles, the poulp, thornback, roach, and especially the sturgeon. Regarding the latter, it is worth while to make an extract from Dr. Salmon's work: "The spawn with salt makes caviare, which nourishes, increases seed, and excites lust, etc.

It is to be regretted that our periodical sources of information, the newspapers, should have given the whole subject a highly sensational clothing and employed a figure of speech "Elixirof Life," which is entirely unwarranted.

Dr. Brown-Sequard never made any extravagant claims for this treatment. In fact his article is characterized by modesty and cautiousness.

The article referred to appeared both in the London Lancet and the British Medical Journal.

That the method of preparation employed by Dr. Brown-Sequard is rather unscientific or at least unpharmacentical, goes without saying. At the same time the credit of devising this means of resupply of the energizing principle is his due, and is deserving of the highest recognition. Evidently, since the salt in question appears to be quite permanent, there exists no valid argument against its employment as a perfectly safe and legitimate medicinal agent.

The action of the remedy appears to be simply that of a stimulant and the duration of its action is limited by natural causes.

It is excreted through natural channels, the urine, fæces, etc. The employment of boy's urine in South America as an equivalent to beef tea or extract of beef, may be regarded also confirmatory evidence of the tonic stimulant effect of natural secretions.

That it wastes or departs from the system in diseased conditions is shown by quotations from "Landois and Stirling," and the same conditions are undoubtedly partly responsible for the debility of old age.

It is, of course, rather early to speculate on its mode of action, but enough has been ascertained to point out the proper line of research. Whether it be simply a nerve stimulant or whether it has a direct influence on the organized elements (corpuscles) of the blood itself, of a revivifying or energizing nature, will in due course be determined.

The very fact that it is wasted or excreted in diseased conditions, characterized by important lesions, is a strongly corroborative element of our syllogism. When we replace the loss, an increase of vitality results.

There can be no valid argument against the employment of the pure salt by the stomach, inasmuch as we already partake of it in meat of all kinds. Much must however be wasted in this manner. If used in form of the phosphate, or hydrochlorate, it would appear advisable to give it when the condition and contents of the stomach are best calculated to allow of its absorption. Being a crystalloid, spermine

and its salts are dialysable, and would therefore be absorbed readily if the process were not obstructed by too great a quantity of food matters.

It may be noted here that in experimental administration, all ammonia with which the salt is usually associated, was carefully removed, as also the phosphoric acid combined with it, as it exists in the structures. The results obtained from the hydrochlorate, show that the alkaloid itself is the active agent. On healthy individuals, the substance seems to act simply as an exhilarant or stimulant to the nervous system, this fact being especially noticeable in its action on the sexual apparatus. The strength of solution used, was 4 grains of spermine hydrochlorate to the ounce, representing, in each 15 minims, $\frac{1}{4}$ grain of the salt. Its entire safety having been first demonstrated on animals it was afterwards employed on suitable human subjects. One case in animals is deserving of especial mention: A rather aged cat had a fang extracted some six months ago, there being at that time an ulcerated condition, and an abscess subsequently formed directly under the eye, the latter suppurating continuously. After three injections (one daily) the suppuration has entirely disappeared, and increased vivacity of the animal is also noticed.

An aged negro, long troubled with rheumatism and general decrepitude, due to exposure and habits, after 3 injections showed a remarkable improvement. Whereas he could previously raise himself on the steps of a street car with great difficulty only, requiring a stoppage of two or three minutes, he now is able to enter without delay, almost as easily as any healthy person would. Injections were made in both arms and legs, and he can now move all the members as he has been unable to do for many years. It may be remarked that he had no knowledge of the material employed, or of the supposed effects. It is needless here to multiply cases, as the object of investigation was mainly to identify the active principle and demonstrate the possibility of presenting it in a state of purity.

Regarding the alleged dangers of this treatment, it may be said that the *form* of medication itself is not unattended with danger in unskilled hands. Too often the physician is an unskilful mechanic, and where the syringe should be kept superlatively clean and always sterilized after each operation, it often becomes, through neglect and consequent accumulation of septic matter in the needle or barrel, an instrument of torture, or worse. Of these mistakes, or sins of omission, we seldom hear.

In conclusion, several questions may be pertinent as a compact grouping of the reasoning employed:

1. Why do all animals that are continent display excessive energy?
2. Why does excessive indulgence, or loss of the seminal fluid, invaribly weaken the animal?
3. Why is a larger quantity of spermine contained in the generative parts and nervous system, than in other organs of the body?
4. Why is this substance found in the sputum or detritus of wasting structures?
5. Why do such marked tonic results follow its replacement?
6. Why do certain kinds of food-material, now known to contain this principle, act as decided stimulants, and the evidence of which is usually first discerned in the condition of the generative apparatus?

TREATMENT OF DIPHTHERIA IN THE CHILD.

Dr. Jules Simon, who has written much on the treatment of diphtheria in young children, opposes the use in the disease of mercurials, of chlorate of potash, of borax, of opium, and of emetics. The treatment which he advises is chiefly local, and consists in energetic swabbings made every hour with the following solution:*

℞ Acid salicylic, 0.50 to 1 gramme.
Alcohol, q. s. to dissolve.
Glycerin, 40 grammes.
Infusion of eucalyptus, 40 grammes.

He also prescribes brushing the false membranes when these are very thick and adherent, with a mixture of equal parts of per-chloride of iron and glycerin, these paintings to be made from two to three times a day. He also indicates among the means which may be employed to advantage, sprays of eucalyptus, and thymol.

For nasal diphtheria, he recommends irrigations, and the application of a mild sulphur ointment, one part to seven.

To combat the glandular engorgement, he has the following ointment well rubbed in:

℞ Extract of belladonna, 2 parts,
Iodide of potassium, 1 part,
Lard, 30 parts.
M.

The patient's room should be kept at a temperature of 59 F.; the atmosphere should be constantly renewed, though it is better that the air from outside should enter by another room. The patient should be kept in an aromatic and slightly moist atmosphere, obtained by heating alternately, over a spirit lamp, shallow tin dishes containing tar, the other eucalyptus leaves and water.

Generous feeding and tonics will help keep up the strength. Copaiba and cubebs seem to have some specific virtue in this disease, and are sometimes prescribed as adjuvants. If the larynx is invaded by false membrane, emetics are prescribed early, and tracheotomy performed as soon as the symptoms of asphyxia show themselves. Dr. E. P. Hurd.

*Which would be about 15 grs. to three fluid ounces.

The Medical Age.

A SEMI-MONTHLY REVIEW OF MEDICINE.

B. W. PALMER, A. M., M. D., Editor.

—Published By—

GEO. S. DAVIS, Medical Publisher, Box 470.

DETROIT, MICH., AUG. 26, 1889.

Editorial.

BROWN-SEQUARD'S DISCOVERY.

In the scales of professioual opinion, the merits and demerits of Brown-Sequard's claims, are about evenly balanced. No small amouut of ridicule has emanated from different sources, notably certain members of the French Academy, which appears somewhat incongruous, to say the least. It is passing strange that those who unhesitatingly accepted the weather-cock assertions of Pasteur, unsupported as they were, and are, by evideuce, and based upon no tangible scientific fact, should without inquiry reject the claims of a scientist of world-wide reputation, made upon the strength of nearly a quarter of a century of careful honest experimentation. It is sad to think that the gentleman to whom we are most indebted for our advance in neuropathology and physiology, should be the subject of ribald jests, while the emanations of the *Laboratorié de Rage*, based upon experiments of one day, entirely divested of control, are eagerly snapped up the day following, loudly heralded and widely disseminated. Were Dr. Brown-Sequard's statements proven wholly fallacious, which they are very far from being, his age, professional standing, and well known honor and probity, should, at least, entitle him to respectful attention.

But his claims have not as yet been disproven by any reliable experiment. On the contrary every day brings more or less confirmation—not through the lay press, who have taken the matter up in a sensational way, not through the irresponsible parties calling themselves physicians who rush into public print twelve hours after an imperfect investigation, or perhaps none at all; neither by those who have attempted the experiment, and unfamiliar with its details, have failed. It is such who bring discredit upon experimental physiology and pathology, and who tend to intensify the would-be sarcasm of "Elixir of Life," and make it the rallying cry for all classes of pretenders. This very fact is most unfortunate and to be deplored, as it deters many honest professiona men from entering the arena of experimentation and research, while it has also served a host of charlatans with the means of advertising themselves and their wares, with little trouble and expense. Worse still, many of the profession have taken their cue from the public press, hence have conceived an entirely erroueous opiniou regarding both Prof. Brown-Sequard and his claims.

Dr. Sequard nowhere heralds au "Elixir of Life," "Fountain of Youth," or other such nonsense, and this likening to Ponce de Leon, is simply an emanation of the reportorial brain. His statement made before the Societé de Biologie, is simply to the effect that, in his own case, aud in experiments conducted more or less continuously since 1869, he had reason to believe a discovery has been made of a new nerve stiuulant, concealed, or contained, in the spermatic secretion; that its influence is chiefly expended upon the exhausted central nervous system. The fact it relates to the most sacred portions of the animal economy, and that the abuse of these organs by man is such as to bring not only them, but their possessors, in moral disrepute, seems to tempt popular and vulgar levity.

The claims, however, are not altogether new to the world, presumably. We now have every reason to believe that the ancient civilizations—Chaldea, Egypt and Ethiopia for instance—forgot more of pathology and physiology than we yet know. Among these ancient peoples there was a strong veneration for the sexual apparatus as the origin of Life, which underlay their worship, and yet survives esoterically to every knowu religion of the world. Christianity included; to-day the phallic and yoni emblems appertain to the worship of the Nazarine and his virgin mother. We find the same reverence vulgarized, yet plainly patent in the Middle Ages; also that the generative organs and their products, from their earliest times to the present, were regarded as furnishing potent remedies for diseases of a certain class. In the British Pharmacopœia of 1676 (Salmon) such products are accredited with inciting lust, furthering impregnation, stimulation of the sexual function in both sexes, and preventing "falling sickness" (epilepsy). These have fallen in disrepute, not from evidence of lack of therapeutic activity, but on account of inexpediency—difficulty of securing and preparing. To-day, in portions of England the farriers employ the secretions of testes, administered on a fasting stomach, to renew the sexual function in exhausted stallions and other stock getters, and it must be admitted such therapeusis is attended with a degree of success entirely incompatible with the claim of coincidence.

All this goes to show that Brown-Sequard

had a practical basis for his experiments, and, moreover, that from the first they were not devoid of scientific probability. It is a trite assertion of Science, that "No superstition or myth is wholly devoid of truth."

Further, the existence, long known, of Charcot-Neumann's crystals, presupposed an alkaloid, that has recently been identified by the chemical staff of the Laboratory of Parke, Davis & Co., and corresponds exactly to the *Spermine* of SCHREINER, C_2H_5N (1878). The alkaloid is further found in the gray nerve-matter of the brain, in eggs, oysters, lampreys, fish ovæ and milt; likewise in the products of all atonic mucous membranes whence is developed excessive secretion or waste. Still further research has developed its presence in excess in the sputa of senile and acute bronchitis, in the expectorations of phthisis, and of emphysema with catarrh, and in the blood and spleen of anæmics and leucocythæmics.

Certainly there is food for reflection in the fact this product is discoverable in wasting diseases in excess. In the circulation of leucocythæmics, where the proportion of white blood corpuscles to red is as one to *three*, instead of as in health one to *three hundred and seventy-three*, spermine is readily isolated in considerable quantities, and the brain suffers correspondingly for lack of a vital element.

It is a well known physiological fact, that those suffering from wasting diseases fail mentally and physically in a degree altogether disproportionate to the amount of food ingested and assimilated; especially is this true in catarrhal pneumonia. We must, then, look for some other element than the mere fact of waste, as generally understood. Again, the loss of the vital portions of the sexual apparatus, which interfere with the secretion of the seminal fluid, so completely transforms the individual, physically and mentally, that physiology has been forced to acknowledge an unknown cause, inadequate of explanation by mere loss of glandular tissue. Such individuals are rarely long-lived, are exceptionally predisposed to disease, are lacking in general brain activity, and incapable of great physical and mental exertion.

Again, it is an indisputable fact that genital affections of all classes are accompanied by pallor, wasting and general exhaustion of the economy, most manifest in the central nervous system, a most pitiable condition ensuing. The wasting diseases of the female organism, notably leucorrhœa, are as positive in these effects as the excessive loss of semen, or a violent urethritis, in the male. Barrenness is a frequent concomitant, and invariable when the discharge is both profuse and of long standing, and there is the usual evidence of mental decrepitude. Observe how rapidly the cachectic, chlorotic, nervo-sanguine blonde girl, and the prematurely aged and haggard spinster of middle life, both suffering from excessive lues, by happy marriage, even when entailing unaccustomed labor, in great degree, renew vitality, youth, and health, and obtain rapid abatement of the flux!

In laboratory experiments it has been found that the *hydrochlorate of spermine* ($C_2H_5N.HCl$) is the most desirable and convenient preparation of the alkaloid, as it is freely soluble in water; to casual inspection it resembles hydrochlorate of cocaine. Page 369 will be found an account of the investigations undertaken in the laboratory of Messrs. Parke, Davis & Co., of which it may be said they were undertaken in a somewhat skeptical spirit, and that embraced a period of six weeks. Though not perfected in all details, enough has been discovered to warrant the assumption that there is a good deal more than mere assertion in the claims of Prof. BROWN-SEQUARD. It seems probable the salt will prove a valuable addition to our materia medica as a hæmatic and nerve stimulant, with specific applicability in collapse, wasting diseases, and certain forms of mental disorder.

Regarding the irresponsible experiments undertaken, or claimed to have been made, appearing daily in the lay press, it may be remarked that the majority bear *prima facie* evidence of spuriousness. We may also believe that more than one case of septicæmia has been developed, since ignorance of the method of preparation, of segregation of effete and dangerous products, of removal of possible micro-organisms, and of the physiological axiom, that "The truth of the positive is developed only by the negative," is unwittingly self confessed.

The seminal secretion, *per se*, is a fluid of extreme instability, and when mixed with blood corpuscles tends to rapid decomposition. Unless obtained immediately after the death of the animal, and rapidly prepared and filtered, its employment is prone to be attended with disastrous consequences, and even then it can not be deemed positively safe unless the preparation has been such as to carefully inculcate sterility through every stage of the process.

Some of the adverse criticisms that obtain are based upon false premises. One writer claims to have secured identical results from the subcutaneous injection of semen, but this is not tenable, since this fluid, with extremely rare exceptions, when thrown into the cellular tissue, induces abscess formation, a fact that never occurs with spermine, or properly prepared testicular fluid. Again, a chemist, Mr. J. D. RIKER, ascribes the virtues claimed by BROWN SEQUARD, to the ammoniophosphate of magnesium, and phosphatic salts, such as are found in semen: yet no

microscopist or chemist would mistake the crsytals of spermine for any of these salts, as they are widely divergent in form and arrangement. Further, the phosphates produce no appreciable result in any doses that are compatible with the use of the hypodermic syringe, and the physiological effects of phosphorus (as cited by this writer), are very far from being those of the phos*phates*, either individually or collectively. Hydrochlorate of spermine, however, employed subcutaneously in a dose of $\frac{1}{10}$ grain, in a dog 13 pounds, induced marked physical and mental activity, and powerful and prolonged stimulation of the genital system. This experiment has been repeated several times in the laboratory of P., D. & Co., with identical results, as witnessed by the writer: and here at least these sequels cannot be attributed to imagination, or psychic influence, since control experiments were wholly negative, and operator and observer alike skeptical. It is interesting to note also that experiments undertaken by M. VARIOT (Therapeutic Gazette, August, 1889, p. 566), of the French Academy, by Prof. W. A. HAMMOND, and by Dr. H. C. BRAINARD, of Cleveland, are all corroborative of those of BROWN-SEQUARD. Space will not permit of details, but we will undoubtedly have occasion to allude thereto, and to the labors of other investigators, again in the near future. And, while we are not prepared to assert so profound advantages are to be derived from the new discovery as are claimed, there is little doubt hydrochlorate of spermine will find, for a time at least, a field of usefulness.

THE MANAGEMENT OF HAY FEVER.

It is perhaps needless to remark that there are no "*cures*" for Periodic Catarrh or so called "hay fever," except removal outside of the areas where the malady obtains; that is to say, apparent cure in one year is no evidence of non-recurrence the year following; that the remedy that was efficacious one season, may prove wholy inert the next; or that which relieves one individual to-day is totally inadequate to the needs of another to-morrow; in fact any form of treatment where attempt is made toward general application, is sure to illustrate the correctness of the old proverb: "What's one man's meat is another's poison."

Theoretically the objects to be achieved are three-fold: The soothing and strengthening of the general nervous system: The allaying of local irritability, and: The removal of the exciting cause. The two former are of course palliative chiefly, while the latter (and to a certain extent the first may be conjoined) presupposes radical relief.

To remove the exciting cause, or to speak more properly, to remove individual susceptibility, is to prevent the recurrence of the paroxysms, for which there is but one definite remedy, *viz.*: Removal to regions outside of the "hay fever" zone. Unfortunately, however, there are many who cannot avail themselves of this advice, and who, consequeutly, must ever be subject to the exciting causes of the malady.

Under such circumstances the most pertinent suggestions are: To follow the approved rules of hygiene; avoid as far as possible conditions that aggravate, notably mental weariness and worry—which are more potent factors by far, than commonly supposed—and attend strictly to the maintainance of general health, strengthening as far as possible—by tonics and other means—the weak and irritable constitution. Indigestion, commonly termed "dyspepsia," is a most potent cause in many instances, and proper food, properly digested and assimilated, has permanently relieved more than one apparently confirmed "hay" asthmatic. SIR MORRILL MACKENZIE seems to place great faith in the employment of zinc valerianate with assafœtida, as a tonic, nervine, palliative treatment, but it must be acknowledged that seldom is observed any result accruing other than, as in MARK TWAIN'S classic case, securing to the patient the "odor of a turkey buzzard." To the same end, and also with a view of producing an alterative effect, DR. CHAS. BLACKLEY recommends iodide of potassium with corrosive subliuate, which has been tried as a forlorn hope by many, and with no better effect than a vile taste in the mouth. Arsenic, iodine, quinine, atropine, the bromides, iodoform, grindelia robusta, antipyriu—pretty nearly everything in the materia medica in fact—have been employed, only to mete out disappointment. However, tonics and alteratives are often valuable adjuncts, as are also the saline laxatives, and the hay fever ridden unfortunate will oftimes obtain, in connection with local applications, decided assistance by the use of Hunyadi Janos diluted with pure water, and drank hot immediately upon rising. Such narcotics as belladonna, stramonium, opium, etc., singly or in combination, are much lauded, and may give partial relief while one is under their immediate influence, but the dangers and drawbacks are such that the malady is a preferable choice.

Local applications, as a rule, are somewhat more successful as palliatives. "Hazeline" or extract of witch hazel, anthoxanthum and other tinctures of Homœopathic origin based on the imaginary law of similars and belief in dynamic therapeutics, have been widely puffed and advertised by dealers and manufacturers with all the zeal of that philanthropy which has for its inception a plethoric pocket book; but all are next to useless unless combined with strong *Faith Cure*, are very painful if employed undiluted, and wholly valueless

when mixed with water. Muriate of quinine taken internally is sometimes of benefit, especially if combined with Parke, Davis & Co.'s *dark* euonymin, from its effects upon the secretions at large, but employed as a snuff, or in an ointment, quinine in our experience always appears to aggravate the trouble. Chloroform, or chloroform spirits (chloric ether), is the sheet-anchor of many, and causes much mirth among ribald friends when the unfortunates copiously besprinkle their pocket handkerchiefs, from a bottle constantly carried in the pocket. Were there no other remedy, this would be a great boon, though there are many unpleasantnesses connected therewith, notably, its baneful effects upon the nervous system.

Iodine, as an inhalant, affords some slight relief in many cases, but not near so much as a bottle of strong smelling salts made with bicarbonate of potassium and glacial acetic acid, to which a few drops of antiseptic cologne is often a decided addition. A good sniff, with many people cuts short the paroxysm at once, but the salts must be as *powerful* as they can be made. We would suggest iodide of ethyl also, as a decided means of relief for those who bear iodides well and suffer from the form known as "hay asthma."

Cubeb cigarettes are also very comforting; indeed, if one be smoked in a small room and the doors and windows kept close, tolerably complete immunity for the time is assured.

The remedial powers of arsenical preparations, both locally and internally, have been widely vaunted, but we can only say, from personal experience, that none seem to have the least influence, though it is not to be gainsaid that Fowler's, Pearson's, or Donovan's solution, taken thrice daily *after* meals in as large doses as can be borne without absolute nausea, may oftentimes prove valuable adjuncts to local remedies—especially the Donovan,—Hunyadi Janos water being employed as well, in the morning on rising.

Doctor Carl Genth (British Med. Jour., June 16, '88,) insists that almost complete immunity may be had by bathing the mucous membrane of the eyes with a solution of corrosive sublimate in the strength of 1 to 3000, and also employing cautiously as a douche and gargle. Personal experience, however, does not in the least corroborate this, and a better preparation for the same purposes is, a saturated solution of borax in camphor or chloroform water, which may be intensified with boric acid if desired, and carried in the pocket and snuffed up the nose *ad libitum*. Its soothing effect upon the mucous membrane is frequently almost magical. Bicarbonate of soda in simple solution, employed in the same way, has been suggested by Doctor Newton, but is not nearly so good as the biborate (borax) or even camphor water alone.

Still another remedy that promises to be useful, is the peroxide of hydrogen, as suggested by Dr. Robert Morris. This is the "Golden Hair Dye" of the *nymphs du pave*, and must be employed with caution, since if it comes in contact with the beard or moustache an intense yellow hue results. A fifteen-volume preparation used in full strength, or diluted with water as occasion and the sensitiveness of the mucous membrane in the individual may demand, if sprayed gently through the nasal canals, will cause the patient to snort and blow the froth from his nostrils, expelling the dissolved mucous, when the application should be repeated, and again and again, in the same manner, until the nasal membrane is thoroughly cleansed. Next a spray of four per cent. solution of cocaine may be employed for the purpose of temporarily depleting the swollen capillary vessels, when the entire irritated surface should be touched by means of an applicator (an annealed brass wire bent to an angle of 45°) wound with absorbent cotton dipped in a mixture of hydrastis and boro-glycerin diluted with three times its volume of glycerin. This is by far the best treatment we have found, and is in many instances successful in wholly relieving the patient of his malady after three or four applications: the first two or three times it is essential that it be employed by a physician familiar with the use of the nasal speculum and rhinoscope, in order that every portion of the throat and nose may receive the application. Meantime, the borax-camphor-water should be employed for frequent washings of the eyes by means of an eye-bath; likewise smoked glass "goggles" will be found of great aid and benefit.

Tobacco smoking pushed to the point of nausea, and the use of strong *café noir*, are equally efficacious remedies, oftentimes, with those who are not accustomed to these luxuries, but both fail as soon as one becomes in the least habituated to their use.

One of the first and foremost of palliatives is cocaine. The experience of the writer is, briefly, that as far as the effect upon the nose and eyes is concerned, it is almost perfect, and will enable the sufferer to pursue his ordinary avocations in comfort. A gentleman last year wrote us: "With the assistance of a small bottle of P. D. & Co.'s cocaine solution, 4 per cent., and an inhaler, and armed with a pair of smoked 'goggles,' I have been able this summer to do what I have never before succeeded in doing, viz., enjoy regular bicycle rides without any inconvenience worthy of mention. Without the cocaine this would have been a physical impossibility, as apart from the constant sneezing, the eyes became, even when

protected by large glasses, so swollen and effused by the rapid movement through the air and dust, as to render one almost blind."

Mr. JOHN WATSON, of Westminster Hospital, London, who suffered to such degree during the summer months that every form of labor, physical or mental, was impossible, and who, strange to say, only experienced relief in the atmosphere of the play house, derived great benefit from tablets of cocaine, which he introduced into each nostril, pushing well up with the tip of the little finger.

Sir ANDREW CLARK, records his preference for cocaine bougies made of gelatin and glycerin, each containing one fourth grain of the alkaloid; and also a mixture of glycerin and carbolic acid, eight parts each, with one part of quinine muriate and 1-2000 part of corrosive sublimate, the whole mixed by the aid of heat, and applied by means of a mop to the inflamed and irritated nasal tissues. The effect of the latter is, he says: "Sometimes *nil;* sometimes gives relief for half an hour; sometimes for a whole day; sometimes for an entire season." About one-half of his patients were relieved for the season, and four permanently cured. He also advises at the same time the internal administration of arsenic and the alkalies.

A four per cent. solution of cocaine, which may require to be increased to five per cent. toward the end of the season, may be employed. Four or five drops poured into the palm of the hand, and snuffed up the nostrils by throwing the head slightly backward and from side to side, enables the fluid to reach, practically, all parts of the cavity, though some spray apparatus, or inhaler like Semple's, is much more convenient and certain; at the same time, by moistening the tip of the little finger, a drop or two may be introduced into the corner of the eye with manifest relief to the "needles and pins" sensation. For the first few weeks of the season, immunity is secured by this method even in severe cases, for two or three hours, and as the effect of the remedy wears off it should be reapplied.

If cocaine only had this local action there would be little more to say. Unfortunately, however, there is another side to the picture, since beside its local effect, the drug is a powerful nerve stimulant. We are not now, it must be understood, referring to the untoward effects induced by a single dose owing to the idiosyncrasies of individuals, but from continued use.

During the first few days, the effect is ordinarily delightful: within a minute or two after absorption, all sensations of bodily or mental fatigue are removed, producing apparently a most pleasurable capacity for work; nevertheless it will be found impossible to perform any act that requires great concentration and mental effort—the mind wavers, becomes uncertain, and suddenly the "hay" paroxysm unexpectedly asserts itself; meantime there is very little appreciable reaction. After a short time, however, conditions change: The drug acts less satisfactorily, requiring stronger and more frequent applications, coupled with great reaction. If one has an excess of work, the prostration incident to reaction is very severe: the appetite is decreasd; sleeplessness induced; the heart's action rapid and uncertain; and the whole nervous system brought into a highly-strung, overwrought condition.

This is not in the least an overdrawn picture, and so strongly has it been impressed upon Mr. BERTRAM WINDLE, of Queen's College, Birmingham, that he delivered himself before the Midland Branch of the British Medical Association, a year since, as follows:

"In spite of the great and intense annoyance and suffering produced by the malady, and the relief afforded, I am very doubtful whether I shall venture to run the risk of using cocaine another season. I can readily understand from my own experience what is meant by 'cocaine habit,' and I lay my views before the brethren of the profession as a warning against the rash use of this drug. I should say, that the lesson I have learned is, that whilst cocaine as a remedy affords palliation, perfect for all practical purposes, it is a drug whose use is accompanied by so many collateral disadvantages as to make it very doubtful as to whether continued exhibition during five or six weeks, is a line of treatment which is safe or justifiable to enter upon."

It was the intention of the writer to ignore the drug known as analgesin, or antipyrin, but on second consideration the facts connected with its employment in "hay fever" may be briefly stated. Like chloral and some other remedies, it often has a decided soothing or anæsthetic effect upon the mucous membranes of the body, when taken internally in large doses, but it is a remedy both unsafe and uncertain, and frequently induces profound and dangerous collapse by interference with the heart's action: especially is this true of Knorr's antipyrin.

There are two remedies, however, that may be employed to replace cocaine, and successfully in most instances, viz. brucine and menthol. The former will give all the soothing effect, while the latter may be employed to continue it.* A camphor water solution of brucine is perhaps best, while the menthol may be employed as strong as can be borne, or as required to meet the indications in the individual. Both are safe, and in no way tend to

* There are two other drugs, *cotoin* and *sulphate of thallin*, that promise to be even better than brucine, though personal experience has not been sufficient to warrant any positive assertion as to their value; they are certainly worthy of extended trial.

habituation; and as aids might be employed Hunyadi Janos water, quinine euonymin and hydrastis together, simple but liberal diet with but moderate indulgence in malt or spirits, and as perfect freedom from mental worry as possible. That paroxysms may be repressed by mental effort on occasion, is not to be doubted, and with many, immediate amelioration is had by retirement to a dark room.

Again, cases in which there is decided swelling and thickening of the nasal and post pharyngeal tissues, are effectually treated by caustics oftentimes—by the application of the galvanocautery heated to cherry redness, or by touching with glacial acetic acid. A still milder measure, however, one that was conceived by DR. W. H. DALY, of Pittsburg, consists of the local abstraction of blood from the swollen tissues by means of a small fine knife, similar to that employed to incise the cornea in the extraction of cataract. Though the writer cannot speak from personal experience with this, it certainly commends itself, as does any method that will permit of restored and free nasal respiration, and reduction of sensibility in the hypersensitive areas of the parts; sneezing paroxysms that end in nasal hæmorrhage, are almost invariably followed by relief. In fact we may believe that any application that lessens or reduces the sensitive area of the inferior turbinated bones and posterior portion of the nasal septum, will result in permanent benefit, since one patient of the writer's who suffered from "hay fever" *before* the development of polypi, was entirely relieved when these growths were eradicated, and another obtained equal immunity through an injury that caused extensive ulceration and sloughing of the posterior border of the septum. Probably also, in many instances, the daily application of Sir Andrew Clark's carbolic-sublimate mixture, for some days prior to the onslaught of the malady, will prove effective for that season, or so nearly so that merely a mild menthol spray, employed after thorough douching, will be entirely satisfactory; at the same time the mucous membrane of the inner corners of the eyes should be carefully washed every morning with soft water, and thoroughly saturated afterwards with a mild solution of corrosive sublimate (1 to 3000) or borax and camphor water. Where the disease affects the ear also, the Eustachian way and the middle cavity may be inflated by means of Politzer's inflation apparatus, with the vaporizer attached containing chloric ether. By such measures, aided by careful study of each case and its individual idiosyncrasies, one may with some degree of confidence, insure tolerable comfort to the patient, sufficient at least to enable him to attend to ordinary occupations, and above all relief from that peculiar and harrassing feeling of aprosexia, or mental lassitude that constitutes inability to fix the attention upon any one subject, which is so constantly a concomitant of the malady.

ACIDITY OF THE GASTRIC JUICE.

CHARLES RICHET has made a series of experiments by which he finds that the acidity of the gastric juice in man, varies between 1.50 and 2 grammes, and is most marked toward the end of digestion, when it may attain the highest figure. During fasting, the gastric secretion is hardly at all acid, and in some instances may even be alkaline. The gastric juice, then, must be considered as intermitting; in any event, hunger cannot be attributed to acidity.

In some animals, such as the carnivorous fishes which swallow their prey whole, the acidity is extreme, amounting perhaps to as much as half an ounce per litre.

In gastric juice, the hydrochloric acid is combined with various organic substances (leucin, pepsin, pepton, glycocol), which belong to the group of *acid amids*, and, by molecular constitution, have the property of indiscriminately playing the part of acid or base; hence the possible formation of chlorhydrates of pepsin, leucin, etc.; and by reason of these combinations, it is impossible to detect hydrochloric acid by ordinary reactions.

How is the acid of the gastric juice secreted?

During fasting, there is mucous, but no true gastric fluid, *i. e.*, a juice which is both *acid* and *peptic* in the stomach: but the moment when digestion begins, however, by irritant action of alimentary substances, a determination of blood in the walls of the stomach is excited, the mucous membrane reddens, and drops of juice ooze to the surface of the mucosa. The secretion, too, is largely dependent on reflex nervous influence. The acid is found at the surface of the membrane (as proved by CLAUDE BERNARD), while the subjacent cells have for their rôle the secretion of pepsin.

Although the active principle of the gastric digestive fluid is hydrocloric acid, lactic acid is also formed toward the end of digestion. When the latter is formed in excess, the best corrective is dilute hydrochloric acid, which prevents secondary fermentations, and thus removes the source of the lactic acid; hence the benefits of hydrochloric lemonade in acid dyspepsias.

With regard to the mechanism of formation of the acid of gastric juice, it has been compared to the double electrolytic decomposition of chloride and phosphate of soda. The alkali which is formed circulates in the blood, and acid is secreted. In this case, the blood should have a greater alkalinity during digestion; and in fact, if the acidity of the urine is tested at this period, it will be noted that the normal

acidity has diminished; perhaps even the reaction is alkaline. This certainly favors the hypothesis, though it must be confessed, however, the data are still very incomplete.

NEPHRŒRAPHY.

Nephrœraphy was practiced for the first time by HAHN, of Berlin, in 1881, who had detected the presence of a renal ectopia in a young girl of twenty-eight years. Just externally to the sacro-lumbalis, from the last rib to the crest of the ilium, he made a vertical incision, penetrating to the kidney, and with several stitches of catgut attached the cellulo-adipose capsule of the gland to the lumbar wound, which he then sutured. The operation was not a success, however, and he performed it subsequently several times, though still without satisfactory results.

Although DURET afterwards endeavored to improve on HAHN'S process, and with partial success, it remained for TUFFLER to propose a procedure which was attended with benefit in twenty one out of twenty two cases, as reported by LE CUZIAT. His method is: After cutting down upon the kidney by the lumbar region, and separating from its cellulo-adipose capsule, he passes through the lower part of the gland a needle armed with large catgut thread, which enables him to hold and control it. Sometimes another catgut is passed through the upper extremity. Next, he makes a button-hole incision along its convex border, in the capsule proper, and decorticates the posterior aspect of the organ throughout its entire length for a space of about an inch in width. Now he resects the capsule as far as separated, and fixes the borders of the remaining portion to the lips of the wound by two or three sutures on each side, so as to bring together the bleeding surfaces. Lastly, he ties in the middle of the lumbar wound, the large suture which traverses the kidney below, while the upper thread may be fixed to the periosteum the fibrous parts which cover the external face of the twelfth rib.

After all, in spite of the success which is claimed to accrue to this operation, it is extremely doubtful if it will ever obtain a place within the domain of legitimate surgery, except perhaps as a *dernier ressort*. Manifestly the number of cases, in spite of the percentage of recoveries chronicled by LE CUZIOT, is not sufficient evidence for any very precise data; to the majority the sequels savor largely of coincidence and accident; and as the operation is held permissible only for the relief of suffering incident to the phenomena provoked by floating kidney, it would appear that other, and much more legitimate measures, which are not directly threatening to life, should be preferred.

Book Notices.

MEDICAL AND SURGICAL MONOGRAPHS. Paper, 8vo.: Pp. 540. Price $1.00. Wm. Wood & Co., N. Y.

This, the August number, devotes thirty-three pages to Treatment of Syphilis (by MAX. VON ZEISSL); thirteen to Home Treatment of Inebriety (JAMES STEWART); and 494 pages to a reprint of Bourneville and Bricon's Hypodermic Medication.

The latter being the chief part of the work, and reproduced, as intimated, for American practitioners, we naturally look for corrections and emendations. In this we are disappointed, the English work as translated by DR. ANDREW CURRIE, being retained entire, with here and there scattered notes in brackets by DR. CHAS. RICE.

The numerous bracketings, by different individuals, not only mar the beauty of the book, but oft-times are most misleading and conflicting, adequate explanations being wanting. The changes most demanded, viz. in formulæ, are altogether wanting, hence there is a lack of the practical. We cannot but think also, it is questionable taste in the matter of cuts of syringes, to display only those of one American manufacturer, which are by no means the superior of many others in the market.

We opine further, the publishers would have found it more satisfactory (as their patrons most certainly would) to have had the book rewritten, omitting the impracticable, and also many of the formulæ, which, to say the least, tend to error in administration. Many of the so called solutions are merely *suspensions;* others are incompatible, and appear to have been selected by the authors merely as the exponents of opinions of individuals. Several new remedies also should have found place in the volume, and new chapters substituted for those devoted to Antipyrin, Icthyol, Moschus, and others.

ELEMENTS OF PHARMACY, MATERIA MEDICA AND THERAPEUTICS By WILLIAM WHITLA, Belfast Royal Hospital. Fifth Edition. 12 mo.; Pp. 650. London. Henry Renshawe.

This is one of RENSHAWE'S "Manuals," and the very fact the work is in its fifth edition speaks for its popularity and value. Concise in text and condensed in arrangement, it is of especial value to physicians and pharmacists, not the least of its conveniences being 124 pages devoted to Non-Official Remedies. Of the balance, 80 pages are allotted to Pharmacy; 52 to the Administration of Medicines; 98 to Materia Medica; and 192 to Therapeutics.

A LABORATORY GUIDE IN URINALYSIS AND TOXICOLOGY. By R. A. WILTHAUS, M. D. Cloth, Long 12 mo. Pp. 76. Wm. Wood & Co., N. Y.

Too much praise cannot be given this little

book, not alone on account of its conciseness and convenience, but also for the form in which it is gotten up, rendering it available for the chemical table. An exellent feature is the interleaving for notes. For the physician it is the best manual and guide yet published.

Notes and News.

Injurious Effects of the Telephone.—Not long since we noted the bad effects of the electric light on the eyes, and the peculiar disease which it brought about; now we would call the attention of our readers to some of the injurious consequences of the too continuous use of the telephone. M. GELLE (Jour. de Med. de Paris) has noticed such many times. In one case, a man of intelligence who was compelled to use the telephone every few minutes, there resulted a state of great nervousness and hyperæsthesia of the ear, such that sounds caused persistent vertigo and buzzing. Repose would always give relief.

In another patient, a young lady employed in a large establishment which carried on most of its correspondence by telephone, the hearing rapidly deteriorated, but was at the same time painful, while the ear became the seat of drummings and noises of various sorts. Rest from her occupation gave prompt relief from all of these.

The author thinks that in the sonorous shock transmitted by the instrument, there is a traumatic action which may exaggerate to a marked degree any pre-existing aural lesion.

Besides the symptoms mentioned above, the author found, in some cases, inflammatory states of the tympanum, which were undoubtedly developed through the same influence.

Once the lesion is established, further progress is easy. The injurious effects of telephonic noises should be classed, then, amongst those cases, which have long since been recognized as giving rise to diseases of the ear in persons whose occupation requires them to be near noisy machinery, and in whom are observable distinct lesions of the tympanum, and even more serious manifestations, such as unending pains and neuralgias, enervating and harassing noises, extreme deafness, and chronic vertigo.

The internal, as well as the middle and external ear, is finally affected, and the general nervous system itself undergoes a change, the effect of these repeated shocks.—*Weekly Medical Review.*

A New Professor of Botany in Berlin.—PROFESSOR ENGLER, of Breslau, has, after many difficulties, been been appointed to the chair of Botany in Berlin University, which has been vacant since EICHLER'S death three years ago. ADOLF ENGLER laid the foundation of his fame as a botanist by his minute study of a single species of plants, the stonebreaks, the final results of which he published in 1872. From this special study he passed to one of more general interest, and published in 1879-82 his "Versuch einer Entwickelungsgeschichte der Pflanzenwelt" (Attempt at a History of the Development of the Vegetable World), taking up the subject where DARWIN dropped it. The book excited unusual attention among botanists. Of ENGLER'S other writings, two deserve special mention—viz., his contributions to the Flora Brasiliensis (a great work begun by MARTINS, carried on by EICHLER, and now by URBAN), and his notes on the Flora of the Baltic, written for the Scientific Commission for the Investigation of the German Seas. As a university teacher, ENGLER has taught in Munich, Kiel, and Breslau. At Munich, he was also keeper of the Botanical Garden. He was called to Kiel in 1878, and to Breslau in 1884. His predecessors in the Berlin chair since the founding of the University in the beginning of this century were WILDENOW, LINK, BRAUN, and EICHLER. —*Lancet*, Aug. 3, '89.

The Heredity of Tuberculosis.—HUTINEL, of the *Hôpital des Enfants Malades*, has published a communication on the "Heredity of Tuberculosis," of which the conclusions are as follows:

As for the direct transmission of the germ from the parents, we are warranted in affirming that communication by the father is not proved, and is very problematical; transmission by the mother may take place, but it is extremely rare.

Heredity, nevertheless, exists; for if the offspring of phthisical parents are not born tuberculous, they are *tuberculizable;* they may not, it is true, have brought with them the germ from their birth, but they have inherited a culture soil (*terrain*) favorable to its development.

In accordance with these conclusions, which are in harmony with a multitude of clinical observations, LANGERHAUS, who has long practiced in Madeira, has noted that among the individuals not phthisical that have come to that island for a certain number of years, only those born of tuberculous parents become infected by the numerous phthisical patients resorting to that island every year. Of every ten individuals with phthisical parentage, one died of tuberculosis, while the proportion of those becoming consumptive with no hereditary predisposition, has been as one to sixty-eight.—*Boston Med. and Sur. Jour.*, Aug. 1, '89.

Flies as Carriers of Contagion.—Since the recognition that in many diseases the infective principle is particulate, the possible means of

conveyance of the virus from one to another individual have widened. Attention has lately been recalled to the part which may conceivably be played in this direction by the agency of the house-fly. Our contemporary the Liverpool Mercury (July 25th) reminds us that the granular ophthalmia of the shores of the Nile —a true plague of Egypt—has been shown to be propagated through this medium; and has further alluded to the discovery by Dr. Alessi, that the bacillus tuberculosis may exist in the intestines of flies which have been feeding on phthisical sputa. Indeed, it would appear that there is hardly any direction, either in our mode of living, eating, or environment, whereby we can avert the possibility of the transference to ourselves of this ubiquitous bacillus, and life would become intolerable were it not for the well-grounded belief that phthisis is not dependent for its development upon this microbe solely, but upon the concurrence of many conditions of almost, if not quite, as much importance as its implantation in the body. *Apropos* of flies, however, it has been stated that the lamented Father Damien attributed his leprosy to the inoculation, through their agency, of an abrasion in the scalp.

The Bacillus of Senility.—Since Brown-Séquard's, no new elixir of life has actually been discovered, but Dr. Achille Malinconico feels confident that he is on the trail of one. In a brochure entitled "Trattato sulla possibilità della prolongazione illimitata della vita umana," mention of which we find in the Deutsche Medizinal Zeitung, he unfolds his plan of operations. It rests upon the assumption that decay and death are not necessary phases of development, but the work of a specific micro-organism. On the principle of "first catch your hare," this organism must be identified, and Dr. Malinconico has no doubt that this will soon be accomplished, and that its destruction will then sink to the level of a mere detail. Until then, however, death still hath its sting and the grave its victory.—*N. Y. Med. Journal.*

Suicide of Professor Loreta.—Professor Loreta, of Bologna, by whose name the operations of resection of the liver and digital divulsion of the orifices of the stomach are known, killed himself with a razor on July 19th. He had lately shown symptoms of melancholia, and had several times suggested to his friends the desirability of putting an end to the persecutions to which he believed he was exposed, by taking his own life. Loreta was born in Ravenna, and was fifty-eight years of age at the time of his death. Last spring two tablets were erected in Bologna commemorating the "Loreta operations," and the distinguished surgeon was the recipient of many honors at the time, from societies in Europe and America. Until his mind became diseased he was always of a happy and cheerful disposition.

The Tendency of the Times.—The following is a take-off on the tendency of the average doctor to specify proprietary articles:

R	Ol. Morrhuæ (Baker's),	f. ʒ iii.
	Qi. acaciæ (Squibb's gran.),	ʒ i.
	Aquæ Lauro Cerasi (Cheris),	f. ʒ i.
	Syr. Hypoph. (Fellows),	f. ʒ ii.
	Ol. Menth. p. (Hotchkiss),	qtt. x.
	Aq. (Jones' filter), q. s. ad	f. ʒ viii.
	Emulsify in mortar (Wedgewood).	
	Put into vial (Whitall T. & Co.)	
	Cork (Armstrong).	
	Label (Gast Lithogr. Co.)	

Dose:—Tablespoonful (Mermod, Jacc. & Co.) three times a day.—Asinus-Magnus, M. D., Phys. of the Future, (in *Myer Bros. Druggist*, Aug. 89.)

Death from Sulphonal.—Dr. R. R. Petit reports, in Medical News, a case of death from sulphonal, which resembles, he says, except in its issue, Case III reported by Dr. Hay in the July number of the American Journal of the Medical Sciences, "for in spite of the numerous examples of disagreeable after-effects, it is still constantly recommended in doses exceeding that I gave with fatal result. Kast, in his original report, and other observers, have warned against large doses to females on account of especial susceptibility, but I fear that the continual repetition of its safety, and freedom from action on pulse, temperature, and respiration, will make others careless, as it did myself."

Arteries for Drainage-Tubes.—At the late meeting of the American Surgical Association, Dr. S. H. WEEKS showed some specimens of a new variety of absorbable drainage-tubes he had prepared. They are made from the arteries of the ox. The vessels are separated from their sheaths, and cut into appropriate lengths. They are first boiled in water for five minutes, then passed over glass rods of proper size. Subsequently they are immersed for ten minutes in corrosive sublimate solution (1 per cent.), and finally stored in alcohol (95 per cent.). They are said to be entirely unirritating, to act as efficient drains, and to be absorbed in about a week.—*Lancet*, Aug. 3, '89.

A Physician Imposter.—An alleged physician, calling himself "Dr. F. A. Davis, of Johnstown," having sought to work upon the sympathies of the medical profession of New York City, a notice has been issued by Dr. Bryant, of the Department of Health, that no physician of that name has lived at Johnstown, Pa. The imposter may seek to ply his mean fraud elsewhere, and we hope he may be caught and punished to the full extent of the law.—*Med. News*, Aug. 10, 1889.

The Preparation is Official.—

SPIRITUS FRUMENTI.

Please give to the bearer the above-named potation—
He's a pretty good chap, and employed at the station;
The liquid he craves is known as frumentum,
And my name at the bottom will tell you who sent him.
The letters "Q. S.," to be very explicit,
Is a medical dodge—known as "quantum sufficit."
But, if a special translation you crave for,
It is simply this: Give him all he can pay for.
His case is severe, so pray don't refuse it—
He's a member of church, and knows how to use it.
So, please, don't fail this, my first requisition,
For I'm sound on the goose—an old school physician.

The Opium Habit in Beasts.—A writer in the Annales de Médecine Vétérinaire, M. Jammes, a summary of whose article is given in the Fortschritte der Medicin, states that in countries where opium-smoking is customary, it is not uncommon to see cats, dogs, and monkeys, that are much in the presence of men, acquire a taste for opium in consequence of inhaling the fumes given out by the smokers. He cites three examples—one in a cat, and two in monkeys—*N. Y. Med. Jour.* [We know of a case occurring in a dog.—ED.]

Dr. William Brodie, of this city, who a short time ago was thrown from his carriage suffering fracture of the ribs, we are glad to learn is rapidly convalescing, and that it will be a matter only of a few days ere he resumes his accustomed duties.

Kola-nut Bread.—The virtues of the kola nut, of which so much has been written, are introduced into ordinary wheaten bread. The bread so made has a peculiar rich taste, and microscopical examination shows that its name describes it correctly.

Therapeutic Brevities.

Cocaine as a Hæmostatic.—An anonymous writer in the Scalpel, on the hæmostatic action of cocaine, remarked that for the last three years he has had recourse to the subcutaneous injections of the hydrochlorate of cocaine to produce local anæsthesia, that after these injections there was no hæmorrhage, or at least the flow of blood was less than when he did not employ cocaine. From this fact the idea struck him that it would be a useful means against excessive hæmorrhages, which are sometimes difficult and long to arrest. With the view of correcting the flow of blood, the author tried the direct application to the bleeding surface of pads of charpie imbibed in the following solution: hydrochlorate of cocaine, 1 gram; alcohol, 5 drops; cherry-laurel water, 5 grams. He sometimes applied the powder of cocaine to the wound, at others he employed a subcutaneous injection of the same substance, in the neighborhood of the seat of the hæmorrhage. The first mode of application succeeded in rapidly arresting a severe attack of epistaxis. Suppositories containing from 15 to 20 centigrams of cocaine have always succeeded in arresting persistent oozing of blood. Commenting on this note, Dr. Fano, in the Journal d'Oculistique, observed that this latter dose of cocaine is not without danger. It is well known with what facility and rapidity is accomplished the function of absorption in the rectum.—*Journal of the A. M. A.*

Syr. Trifolii Co—The Pharmacopœia is singularly poor in vegetable alteratives, and sarsaparilla, the best known and most frequently prescribed, is most uncertain in action, and frequently very disappointing in results. Any well tested addition, therefore, to our materia medica in this class of remedies, will, we are sure, be gladly welcomed by practitioners. Some time ago we received from Messrs. Parke, Davis & Co., of Detroit, U. S. A., a sample of a syrupy compound containing the essential elements of trifolium pratense (red clover), stillingia sylvatica (yaw root), lappa officinalis (burdock), phytolacca decandra (poke root), berberis aquifolium (mountain grape), cascara amarga (Honduras bark), and xanthoxylum Americanum (prickly ash). All these are powerful alteratives, and have been in common use by American physicians in cases of a scrofulous or syphilitic nature. The proportions of each drug contained in the syrup are given with the directions, and to increase its operative action eight grains of iodide of potassium have been added to each ounce. We have used it with decidedly satisfactory results in some cases of chronic skin diseases of suspected specific origin. Being very palatable, children take it readily, and we have found it exceedingly useful, when combined with small doses of perchloride of mercury, in treating congenital syphilis.—*Hospital Gazette*, (Great Britain) Aug. 3, 1889.

Treatment of Alopecia Prœmatura.—Dr. Oscar Lassar has contributed to the Therapeutische Monatshefte an interesting paper on the nature and treatment of alopecia (prœmatura) furfuracea. This, the commonest form of baldness, is, according to the author, extremely contagious, and can be experimentally communicated from man to the lower animals, while every day it is unconsciously being spread widely among the general population. No specific organism has as yet been isolated, but a number of cases is given to prove the contagious nature of the disease. The following treatment is recommended as being efficacious in most cases: The hair is washed daily with tar or other soap, for 10 or 15 minutes, after which the soap is carefully removed with abundance of water. It is then rubbed with the following lotions: (1) Hydragyri perchloridum (½ per cent. sol.) 150 parts, glycerin and eau-de-cologne of each 50 parts; (2) β naphthol 1 part, absolute alcohol 200 parts. After careful drying, the following pomade is to be used: Acid salicylic 2 parts, tincture of benzoin 3 parts, olive oil to 100 parts. The cure may take six weeks or longer, and careful prophylaxis with regard to brushes and combs must be carried out.—*British Med. Jour.*, Aug. 3, 1889.

Pilsner Beer as a Diuretic.—Dr. Adolf Gruss reports the following to the Wiener klin. Wochenschr., June 14th. A female patient, aged

seventy-four, suffering from valvular and mitral insufficiency, had for three months been treated with various diuretics without avail. The amount of urine excreted in twenty-four hours was only ten to seventeen fluidounces. The patient asked for Pilsner beer. Glad that she should evince a desire for nourishment, her wish was at once complied with. The first day she drank about ten fluidounces. To Dr. Gruss's surprise, on the same day, the excretion of urine increased to forty-four fluidounces. No other diuretic had been given for several days. It soon became manifest that as soon as she stopped taking the beer the excretion of urine again fell to eighteen or even ten fluidounces, but at once increased to forty-four fluidounces when the treatment was again resorted to.

Since then Dr. Gruss has prescribed Pilsner beer in many emphysematous patients suffering from hydrops, and its use has always been attended with marked success.

For Plugging the Nares to Control Epistaxis.—Dr. Juan W. McCoy, of this city, sends a description of a device for controlling nasal hæmorrhage not susceptible of control by the ordinary means. It consists of a flexible tube provided at one end with a stopcock, and surrounded at the other end by a bag of soft rubber. The bag is long enough to reach back of the posterior nares, while the other end projects from the anterior opening of the nostril. In the part of the tube surrounded by the bag are several perforations through which the water may be forced. The tube is introduced, and then the stopcock is opened, and hot and cold water forced into the bag until the latter is well inflated so as to exert an even pressure, and by its expansion at either projecting end to effectually plug the anterior and posterior nares. Now the stopcock is closed, and the instrument may be left in the nose as long as necessary. Inflation may be effected by means of an ordinary Davidson syringe. *Medical Record.*

Instantaneous Cure of Whooping Cough.—The instantaneous cure of whooping cough was attained by Dr. M. Mohn as a result of accidentally observing that the disinfection of the sick-room of the whooping cough patient by sulphurous acid, caused the disappearance of the paroxysms with a rapidity bordering on the marvelous. The patients are freshly clad in the morning, and placed in another room, in which they remain during the day. Meanwhile, 25 gm. of sulphur is burned in the sick-room to each cm. of space; and after the bed-clothing, garments, etc., have been properly spread out, and the sulphurous acid been permitted to permeate the air for five hours, the patients return to their disinfected sleeping-rooms in the evening, and are cured of whooping-cough.—*Archiv. d. Pharm*, 1889, p. 382.

Peru Balsam as a Germicide.—The recent and remarkable results obtained by Landerer with balsam of Peru in the treatment of tuberculosis, have led Drs. Brantigram and Nowak to make a careful test of the germicidal properties of the drug. Their results are as follows:

(1) Pure balsam of Peru will kill microörganisms inside of twenty-four hours.

(2) Emulsions of the drug, up to a strength of twenty per cent., exerted no specific effect either upon the development or growth of bacteria upon which they were tested (cholera, anthrax, green pus, and subtilis).

The Opening of Buboes.—In concurring with Dr. Boileau in his opinion on this subject, I beg to say, that for five-and-twenty years I practiced aspiration, and in all cases patients have expressed satisfaction. Instead of using the bistoury, I use a very small trocar and cannula. In no case have I had a sinus open afterwards, and the patients have not been kept away from their duties for more than two or three days, which to clerks and business gentlemen is a matter of great import.—A. C. Jackson, M. R. C. S. E., L. R. C. P. Ed.

Application of Ice for Night Sweats.—Prof. O. Rosenbach, Breslau, recommends, as a cure for the night sweats of phthisical patients, the application of a bag of ice to the abdomen during several hours of the night.—*Therapeutische Monatshefte*, July, 1889, p. 344.

Hamamelis in Hæmorrhoids.—Rohe, treats internal hæmorrhoids with fluid extract of hamamelis and glycerin—half a drachm of each every four hours. The remedy is promptly effectual in uncomplicated cases.

Medical Progress.

THERAPEUTIC USES OF HAMAMELIS VIRGINICA.—Dr. A. C. Pope in Aug. *Med. Times* thus summarizes the application of hamamelis Virginica:

There are three kinds of *uterine hæmorrhage* in which it has been clearly shown that hamamelis may be most advantageously employed: (1st) cases of miscarriage which, originating in a fall or injury, especially noticeable for the slightness of the pain as compared with the amount of discharge; (2d) cases where, the characteristic pains having been subdued, the hæmorrhage continues. In these last hamamelis is very promptly curative.

Certainly, hamamelis ought to be given in a simple case of *varicocele*, especially where of traumatic origin, and perseveringly given, too, before any operative procedure is advised. In pointing out the special indications for the selection of hamamelis in cases of varicocele, Dr. Farrington says: "The great characteristic of this drug, and that which makes its choice certain, is soreness of the affected part. It is that sore feeling which belongs to venous congestion.

Dr. Burt has suggested hamamelis as a remedy in *gonorrhœal orchitis*. It is mostly useful when the characteristic soreness is constantly present, and the swollen testicle is extremely painful to the touch.

Dr. Ludlam has extended the use of hamamelis from orchitis to *ovaritis*, and has found it very serviceable in sub-acute attacks incidental to pregnancy and menstruation. He prefers the

fluid extract of the drug, which "may be mixed in hot water in the proportion of one part to three, and applied locally by means of cloths or flannels that have been dipped therein. In case the swollen and sensitive organ is prolapsed against the walls of the vagina, a weaker solution of the hamamelis, containing glycerin, may be used as a vaginal injection, or applied by means of cotton or wool saturated with the same and introduced into the vagina. This application is sometimes remarkably efficacious. It may also be injected into the rectum."

Regarding the use of hamamelis in *vaginismus*, Dr. Wallace Mc George writes:

"Useful in profuse and persistent leucorrhœa with great sensitiveness of the parts; great rawness and soreness of the vagina during an embrace; itching of the vulva with vaginismus. This remedy I invariably use, he continues, for this class of complaints, and have known marked and instant relief to follow injections of its tincture."

To *varicoses of the lower limbs*, we have sufficient evidence that hamamelis is indicated, while clinical experience abundantly confirms its value. The cases in which hamamelis gives the most prompt relief are, those where the veins are particularly large, tender to the touch, and generally sore; and where the varix is associated with aching in the limb and in the larger joints. A useful method of using hamamelis in varicoses of the lower limbs is, the application of compresses wet with it, or underneath an elastic stocking.

In *piles*, referable to an existing disturbance of the functions of the liver, hamamelis is not of much use. On the other hand, where, without portal congestion—as often happens in cases of some duration—piles increase rapidly and considerably in size, become sore and tender, and especially when they bleed, hamamelis is particularly useful. Give it internally, three times a day, but at the same time apply it directly to the part, and keep it applied during the night. For this purpose saturate a piece of linen with the lotion of hamamelis (℥ ss. to ℥ j.), place it over the venous tumors, and within the bowel on getting into bed.

Hæmorrhage, from internal piles, will be checked by the injection of a solution of hamamelis more promptly, perhaps, than by anything else. For this purpose the glycerin enema syringe answers exceedingly well.

In cases of simple extension of the hæmorrhoidal veins—cases which are exquisitely painful—hamamelis is of the greatest value.

In *phlegmasia dolens*, hamamelis is useful after the acute symptoms have subsided, when the femoral vein remains large simply from a loss of its contractile power, from over-distension, and somewhat tender.

A Non-Poisonous Sublimate Solution.—M. Edward Salmon presented to the Academié des Sciences and l'Academie de Medecine (Le Concours Med.) formulæ for the preparation of bichloride solution, which he gives assurance is stable and safe, even if swallowed accidentally.

Chloride of sodium added in quantities equal to the bichloride, insures the stability and permanent clearness of the solution; its innocousness is attained in the following way: The addition of chloride of sodium, sulphate of cadmium, or sulphate of copper, communicates to the solution active emetic properties, which prevent their remaining in the stomach, if through inadvertence they be swallowed. Emesis obtained in this way seems to be even more prompt and effectual than when the irritant emetics are given.

M. Salmon has been led to choose the sulphates of copper and cadmium because of their superior power as emetics. The copper salt is from three to five times as powerful an emetic as sulphate of zinc, and the sulphate of cadmium ten times as powerful. But the high price of the latter is an important objection.

The author has found that, to assure the innocuousness of the solution, it suffices to so dose the emetics that they shall begin to act the moment that the sublimate overreaches its therapeutic boundaries. On adding 5 gm. (75 gr.) of tartaric or hydrochloric acid to the litre (quart), the emetic properties of the solution are not sensibly diminished. Based on these considerations, the following formulæ are presented:

A.

		PARTS.
℞	Aq. dest.	1000.00
	Sod. chloridi	80 00
	Cadamii sulph	0 50
	Hydrarg. bichlor.	0.50

B.

℞	Aq. dest.	1000.00
	Sod. chloridi	100.00
	Cupri sulph.	1.00
	Hydrarg. bichlor	0.50
	Ac. tartaric	5.00

C.

℞	Aq. dest.	1000.00
	Sod. chloridi	1.00
	Cupri sulph.	2 00
	Hydrarg. bichlor.	1.00

To these formulæ, coloring matter, such as eosin, may be added for the purpose of making visible distinction between them and other antiseptic solutions.

The formulæ A and B, are adapted to general toilette purposes; for an effectual and pleasant mouth-wash, it is better to leave the acid out.

Formula B, appears especially designed for domestic use.

Formula C, is a simple preparation and inexpensive; in fact, for the sake of economy, nothing is retained in it but the quantity of chloride of sodium necessary to insure stability, and copper sulphate to give color and emetic power. —*Weekly Med. Review*, Aug. 3, 1889.

Cannabis Indica in Dysmenorrhœa and Menorrhagia.—Cannabis Indica has never gained the confidence it merits with the profession, although recommended by Churchill and other eminent authority. The reason of this unfortunate result is chiefly attributable to the preparations of the drug. No drug, perhaps, is so frequently inert, or of feeble strength, as cannabis Indica and a failure to obtain satisfactory results should always lead to an examination of the preparation used. One of the best preparations in the market, and one which has never disappointed me, is the normal

liquid of cannabis Indica manufactured by Parke, Davis & Co., of Detroit, Mich.

Cannabis Indica is most useful in dysmenorrhœa and menorrhagia arising from pelvic congestion or ovarian irritation. In dysmenorrhœa it is very active, giving prompt relief to the colicy and bearing-down pains, at the same time stimulating the nervous system to a sense of strength and well being. The normal liquid may be given in doses of four or five drops every three hours until relief is afforded. When the bladder is irritable and the bowels costive, belladonna may be combined with the cannabis Indica as below:

℞ Liquid cannabis Ind. normal ʒ iiiss.
Liq. belladonna fol. normal ʒ ss.

M. Sig. Five drops every three hours if in pain.

In menorrhagia the curative effect is more potent than in any other drug, and in most cases promptly manifested. In ordinary cases five drops of the normal liquid at the onset of the flow will be sufficient, but in old cases with severe flooding, the remedy should anticipate the flow by six or eight days, and be continued for four or five days after the flow has ceased. In the affection, so common with young women, consisting of deep seated pelvic pains, backache, irritable bladder and congestive headache, we have in cannabis Indica a reliable and agreeable remedy. In many cases it may be desirable to exhibit the drug as a suppository.

℞ Liquid cannabis Ind. normal ʒ iss.
Lanolini ʒ iii.
M. bene et adde
Ol. theobrom. ʒ i.

M. ft. mass, in supp. No. 10 div. Sig. One every 4 to 8 hours.—*Ther. Analyst*, Aug. '89.

THE DIETETIC TREATMENT OF GOUT.—An interesting confirmation of the views expressed for a long time by certain American physicians, notably Dr. Wm. H. Draper, regarding the dietetic treatment of gout, may be found in a paper recently read before the Congress of Internal Medicine, by Professor Pfeiffer.

No particularly new views are entertained on the subject of pathology of this affection, and, indeed, nearly all views are still to be reduced eventually to a question of uric acid.

"The first indication," he says, "in treatment (*Medical Press and Circular*) should be the excretion of a proper amount of urea and uric acid in the urine, since the retention of these products soon produce a low cachectic condition of the system. After this, the administration of a salt that will convert the insoluble substance, into a soluble substance allowing of rapid elimination, soon relieves the pain and reduces the swelling. The first important step is to correct the diet. This should consist largely of albuminous matter, as beef, eggs, etc., as well as fat, and green vegetables; but fermented drinks, starch, and sugar, should be forbidden. The use of a meat diet is very important, as the retention of the urea and uric acid quickly produces a cachectic condition of the system, which must be early combated in the treatment; but the meat diet does more than supply this necessity, for the salts of the meat, when taken into the system, have a solvent influence that speedily raises the elimination of urea and uric acid to even more than the normal quantity. The same may be said of all proteid substances, and more particularly of eggs. Sour milk and cheese should be avoided, but fruit and salads are beneficial, as they alkalize the alimentary canal, while wine and beer have the opposite effect, and should be strictly prohibited.

"The medicinal treatment should consist in the administration of some alkaline salt, and the carbon salts seem to be the best, though phosphoric acid and boracic acid have, in some cases, proved beneficial. Hydrochloric acid and sulphuric acid are objectionable. All alkaline and mineral waters should be given in small doses to begin with, and gradually increased."

Certain German mineral waters, and baths, are, of course, very highly recommended.

The formal advocacy of a meat diet, however, shows that physicians generally are breaking away from the canonical teachings of the English school.

It is not to be forgotten, however, that there are many cases of gout, especially in very plethoric persons, in which meat is not tolerated.

THE THERAPEUTIC VALUE OF OXYGEN INHALATION.—W. G. Thompson, M. D., in Practitioner, Aug. '89, thus states his conclusions in a paper on Oxygen:

1. Oxygen is of value in neurotic dyspnœa, for the relief of the distressing subjective symptoms.

2. Where there is diminished surface for aëration of the blood, oxygen improves the cyanosis, lowers the rate of breathing, and relieves the subjective dyspnœa.

3. Oxygen is of value where there is diminished inflation of the lungs from many causes.

4. It is especially beneficial in the dyspnœas of chronic Bright's disease and uræmia, pneumonia, capillary bronchitis, asthma, and catarrhal bronchitis, and sometimes in pulmonary congestion, and the early stage of œdema.

5. Great care should be taken to secure chemically pure oxygen.

6. Oxygen may be given freely and abundantly in cases of emergency, without fear of any injurious consequences. Ordinarily it is sufficient to give it pure by one nostril, while the other inhales atmospheric air; but it is often best to give it for a few moments by the mouth, or both nostrils, without admixture of air. Oxygen inhalation is of value:

(1) In general diseases of defective nutrition, without regard to dyspnœa:

(2) In dyspnœa due to altered condition of the nerves, or of the circulation; altered composition of the blood (poisons, &c.); diminished surface for aëration; or feeble expansion of the lungs.

The Medical Age.

Vol. VII. DETROIT, SEPT. 10, 1889. No. 17.

Original Articles.

ANTISEPTICS IN OBSTETRICS.*

BY J. B. DAVISON, M. D., MOLINE, ILL.

To the germ theory of fever we are indebted for the subject of antiseptics in obstetrics.

What heretofore appeared to have been established in regard to this theory, is now, by at least a few, held to be erroneous. These claim to have obtained results from experimental injections which proved that fever, with very high temperature (107.6°) may thereby be induced, and occur so instantaneously after the injection, and so rapidly followed by death, that no other than a chemical agency can exist as a cause. Be this as it may, we believe in antagonizing fever; antiseptics are not only beneficial, but necessary. Mercuric chloride and carbolic acid are, perhaps, the only antiseptics which now have the full confidence of the profession. These are used after various modes, but for two purposes only, viz: For arresting disease by their application—destroying the septic cause of diseased action—the purpose being curative: The other by applying the antiseptic to prevent contact of the septic germ, or to prevent virulent action by destroying its vitality, which we term prophylactic. Could we thus, without danger, perfectly prevent the contact of a septic cause, resort to antiseptics would be superfluous. Hence the question arises: Should antiseptics be used in the practice of obstetrics, and if so, *how?* Should uterine and vaginal irrigation be practiced or brought into requisition in all cases, as a prophylactic measure?

Dr. Junius C. Hoag, in the Western Medical Reporter, remarks: "The prophylaxis of child-bed fever should begin during gestation. The patient, besides living in the midst of good hygienic surroundings, well supplied with plenty of clean sheets, towels, etc., should, when labor sets in, have the external genitals washed with an antiseptic solution. The physician should always be provided with disinfectants, sublimate by preference, and a nail brush for the disinfection of the hands, and carbolic acid for such instruments as may be needed. Above all other considerations, I place stress upon the adequate disinfection of the physician's hands."

Dr. William Goodell (Medical Standard) says that he succeeded in stamping out puerperal fever from the wards of the Preston Retreat by the following procedure: "Previous to the birth of the child the vagina was cleansed by a quart of bichloride of mercury solution (1–2000). After complete delivery the vagina was again cleansed in the same way, a suppository of iodoform introduced, and a pad of sublimate cotton (kept in place by a T-bandage) covered the vulva. My hands and those of assistants are carefully cleansed by soap and warm water and a nail brush, and dipped into a (1-1000) sublimate solution before each examination. After the introduction of this plan puerperal fever ceased."

Geo. H. Lee, in the New Orleans Medical and Surgical Journal, says he employs two solutions—one of bichloride (1:2000), and another of carbolic acid (1:40). All metallic instruments are left for 20 or 30 minutes in carbolic acid before use, and non-metallic instruments are put into the sublimate. The hands of the attendant are scrubbed with a nail-brush, in soap and water, and sublimate, before each examination; the vulva washed off with the same, and the hands also dipped therein for a few minutes, a basin of sublimate containing charpie being at the side of the bed. At the beginning of labor, an enema and a bath are given, the vulva being washed with sublimate before examination. When the presenting part distends the perineum, advancing and retracting with each pain, the part, and the genitalia, are occasionally bathed in sublimate, but no vaginal injection is used, unless specially called for by some local condition, or the hand has been inserted. These remarks apply to uterine and vaginal injections used as preventive measures during or immediately after labor. During the puerperium they are never used except when symptoms of sepsis set in, and then only by the medical attendant.

In the Australian Medical Journal, Dr. Eugene Anderson reports upon 500 cases: "Every patient, on admission, was given a simple enema, an antiseptic injection next made into the vagina with a solution of corrosive sublimate (1:1000), and the external parts, including hips, thighs, and buttocks, washed with the same; no vaginal irrigation, unless the lochia became offensive. The patients get up on the

* Read at the Thirty-Ninth Annual Meeting of the Illinois State Medical Society, May 23, 1889.

eighth day generally, and go out on the eleventh or twelfth day. Uterine irrigation is resorted to if there is suspicion of retained portions of placenta, or of rigor with rise of temperature which is persistent. If the lochia is fœtid, or any combination of those conditions arise, a solution of corrosive sublimate is used at a temperature of 110°, about three pints used each time. With judiciously selected cases the result is excellent.

Dr. G. C. SIEMONS reports that in the obstetric clinic in Vienna, when the labor was normal in all respects except a rise of one or two degrees in temperature, as the head came to the vulva the parts were irrigated with corrosive sublimate solution (1:5000); after the child was born, and after the placenta had been expressed, the vagina was again thoroughly washed out, and a 2-per-cent. suppository of iodoform introduced into the cervical canal; also iodoform dusted over the external parts, iodoform gauze applied to the vulva, and a bandage over all and about the body.

WILLIAM HALL, in British Medical Journal, referring to a recent lecture on this subject remarked: He had attended numbers of confinements with cases of infectious disease contiguous, but none suffered puerperal septicæmia. He thought mercuric chloride to cleanse, as an injection, had certain dangers, and preferred silico-fluoride of soda, which was non-poisonous, non-irritating, and cheap, of which a solution of 40 grains to the ounce was employed to bathe the hands on every occasion before making a vaginal examination, and to wash instruments, no lubricant being used. Syringing was not resorted to unless there was fœtid discharge or pyæmia. If the patient has entered upon a normal puerperium, after a satisfactory termination of labor, if no reasonable pains have been spared to shield her from the dangers of infection, and if the uterus has been completely emptied of its contents, there remains little to be done. Keep the patient clean by allowing discharges to be absorbed by clean dressings, and by washing the genitals with antiseptic solution; uterine and vaginal douches, under such circumstances, may be dispensed with.

In the Edinburgh Medical Journal of May, 1888, I find the following: "From Leopold's statistics we learn that during the years 1886-7, 248 women were allowed to pass through labor and the puerperium without vaginal examination or the introduction of a tube or the like within the vagina, in order to determine the question of so-called infection. Out of the total number, 98 per cent. passed through normal puerperia, while slight fever with parametritis was developed in only 2 per cent. These observations are of obviously great moment in showing the relative insignificance of all modes of infection compared with that of contact."

A. L. GALABIN (British Medical Journal) says: "I think we may conclude that the microbes commonly present in the vagina, are innocuous, and that in lying-in-hospitals, at least, and probably elsewhere as well, what has to be done, is to prevent the entrance of virulent ones.

I would venture to urge on all practioners, the importance of providing for themselves, and the nurse, the most efficacious antiseptic known (viz., perchloride of mercury, of a strength not less than 1 in 1000) to be used for the hands, catheters, and any cotton, wool or sponges used for external washing. Disinfection of the accoucheur's hands is the most important thing of all."

Dr. EMIL SAENGER, read a paper at Berlin on the influence of antiseptic remedies on the organs of the body, with special reference to operations on the kidney, and is said to have proved that many persons die with symptoms of uræmia, or anuria, caused by our antisepsis. The various agents were found to be dangerous in different degrees, in the following order: Corrosive sublimate, iodoform, carbolic acid, salicylic acid, and boracic acid. He recommends the avoidance thereof in operations on the thorax and abdomen, suggesting the substitution of salt, which answers every purpose, and is not, in any way, injurious.

The profession in Germany had much to do with the introduction of antiseptic irrigation of the vagina and uterus as a prophylaxis of fever in obstetric practice; this, coupled with Listerism, seemed to infuse new life into the profession elsewhere. But, by the time American physicians became thoroughly enthused, the German had discovered, that while many of their patients escaped puerperal septicæmia, a large number died from antiseptic poisoning. These startling results caused great modification, not so much of the antiseptic agents as of their strength. Mercuric chloride solution was reduced from 1-1000 to 1-2000, and now it is generally conceded that 1-5000, or even 1-10000, is all sufficient for the purpose, and even these are held by many prominent men to be not only unnecessary, but of very doubtful propriety.

Dr. THOMAS protests in the strongest manner against uterine injections, except in very severe operations within the uterine cavity; as a preventive measure to be uniformly adopted, he looks upon it as to the last degree, *reprehensible*, and pernicious.

There may, doubtless, be good reason for local applications of antiseptics in hospital practice, but the number of hospital patients is comparatively small. The greater number of puerperal women cover the face of the whole earth, and children are born by the million; of a portion of one of our own cities it has been said: "There are children, swarms of children,

bred as fast as rabbits in Australia." There are multitudes of mothers in good circumstances who have good medical attendance, and who receive kind attention from loving friends, but the millions of parturient women are attended, if at all, by people of all classes, grades, sizes, colors, and conditions; by self-constituted doctors and midwives. What all these know about antiseptics, is rarely above *zero*, and many do not even wash their hands before commencing operations,—operations which consist in a persistent energetic effort to forcibly dilate the vulva. It is to be presumed that this practice exists because of an utter ignorance of the anatomy of the pelvis and of the pelvic organs. Very many of these have little intercourse with cleanliness, and many of them are simply *horrible*.

Thousands of puerperal women in our own country have not a decent bed, either in quality or condition, and many have no bed at all. Often they are compelled to occupy a pile of rags, dirty rags, in filthy quarters, and are left for days without washing with water, even without sympathy and without help, and distracted by a frowzy, ill-bred, and noisy crowd of romping children. Yet under all these distracting difficulties, together with the curse of poverty, they leave their beds in five or six days, and resume their labors and cares as though nothing had happened. Such facts lead to the conclusion that if ten per cent. of the claims of the advocates of the prophylactic irrigation theory is true, that at least 90 per cent. of all these multitudes would surely die. The hands of physician and nurse in the practice of obstetrics, together with instruments and everything brought in contact with the patient, ought to be at least, clean, and where cleanliness has been observed, and after a normal labor, where no remnant of placenta, membranes, or blood clots, have been left in the vagina, and where there is a well contracted uterus, no man should presume to disturb the case at all.

Soothing liniments, such as salicylic acid and olive oil, may with propriety and benefit be applied freely to the vulva. In the absence of an abnormal condition of uterine or vaginal irrigation, the introduction of plugs, and binding on of pads, in my opinion is not only injudicious, but unsafe.

And as to sifting iodoform upon the person of a woman, it is more than probable that it is not antiseptic at all, as it successfully rivals assafœtida, and the woman, thus treated, is absolutely *bound down*, as it were, by loathing and disgust. Placing a woman in such a position is an act of outrageous cruelty.

The indications are such at present, as to lead us to hopefully conclude that prophylactic antiseptic measures, as they relate to obstetrics, will ere long be transferred from the patient to the hands of the attendants—to the instruments which may be in requisition, and to everything which might, by contact with the patient communicate septic poison. Then, if the germ theory survive, will dawn a day of freedom to woman from the thralldom, annoyance and danger of irrigations, pads and plugs, which in the hands of men, who are mere *followers* of some hospital personal pronoun, are scarcely less dangerous than septicæmia itself.

A CASE OF LOCOMOTOR ATAXIA.

BY D. R. BROWER, M. D., CHICAGO.

The first case to which we desire to call your attention to-day is a very interesting one. I want you to observe the peculiar locomotion of the patient. Notice to what extent he widens his base as he walks. He brings his heels down first; the back part of the heels of both shoes are considerably worn. He is forty-nine years of age, and says he was attacked with this disease four years ago. He has sensations of pins and needles, running from the elbow down to the tips of his fingers. I am pricking him severely, you notice, with a sharp-pointed pin, and he does not feel it. The tactile sense has disappeared, and there is but little appreciation of pain-sense in the left hand. There is but little tactile sense in the right hand; pain-sense is also slight. A severe prick with a pin is slightly appreciated. The patient says he has darting pains all over his body; that they come suddenly and disappear suddenly. He informs us that, some three or four days ago, he had pain in the left foot, in a spot about half an inch square. The pains are localized, they do not follow the course of the nerve trunks. They do not often occur twice in the same place; they do not include the whole limb; a half dollar will usually cover the point of this sharp shooting pain. Notice his eyes; they do not respond to light, and the pupils are contracted.

We will now ascertain what the condition of the patellar-tendon reflex is. We will have him clasp his hands and attempt to pull them apart, and in this way we will do two things: *First*, increase the muscular tonus; and, *second*, divert his attention, and if there be any reflex we will find it out by tapping just below the patella. There is no response in the left nor in the right leg. Now, I may say right here that it is not the absence simply of patellar-tendon reflex that is pathological, because now and then we encounter perfectly healthy people who have no reflex, but it is the loss of it. If it was present, and is absent now, we know there is some pathological disturbance.

In this direction I desire to direct your attention to a very interesting incident. A physician of Chicago found out a few years ago that he had no patellar-tendon reflex. He

shortly afterwards commenced to study his spinal condition, thinking he might have incipient locomotor ataxia. He was in a very uneasy and perplexing position, and commenced investigating the question of patellar-tendon reflex, and it is surprising how many persons he has found in perfect health who have no such reflex.

We will now test the power of co-ordination of this patient; and in the first place I will make a small spot on his forehead, and ask him, if possible, to touch it with his finger. You notice that he does not come within three-fourths of an inch of hitting it. We will now have him stand erect with his feet close together and his eyes shut. You see he would fall were I not to support him. The loss of patellar-tendon reflex, the incoördination of muscular movement, the peculiar locomotion, makes this a case of locomotor ataxia. The numbness, the loss of tactile sense, the incoördination of muscular movement, began, we are told, in the left upper extremity. Now, you are doubtless aware that the disease usually begins in the lower extremity.

He tells us that he had the disease for over a year before he came to this city. He came from some Western city, and while there his pains were not so severe as they are at present. He had had no trouble with the lower extremities at that time. The probabilities are that the disease may have invaded the lumbar enlargement of the spinal cord when he came to Chicago.

With regard to the treatment, I may say that in the early history of these cases, before the ataxia is manifest, when you can recognize by certain symptoms the incipiency of the disease; when, in other words, you have an impairment of the reflexes, disturbance of color-sense, dysæsthesias throughout the body, impairment of tactile and pain-sense, mental depression and irritability of disposition, severe localized pain; you may do something for the relief of your patient and sometimes cure him. If you treat the disease vigorously in the preataxic stage, you can every now and then arrest it. This may be done by putting the spinal cord, as near as possible, in a state of absolute rest; that is, you put your patient to bed, keep him in the horizontal position; by judicious massage and Faradic exercise of the muscles prevent the possibility of their emaciation; give him, at the same time, such internal treatment as is indicated and in accordance with the ætiology of the case. If you are satisfied the case is specific, give anti-specific remedies, and I know of nothing better than Donovan's solution—*liquor arsenici et hydrargyri iodidi.* If, however, there should be no specific history, your treatment should consist of nitrate of silver, in doses of one-third of a grain, rubbed up with cosmoline to prevent decomposition, and given, before eating, three times a day. This may be continued for two months without any danger of producing discoloration of the skin; then, after an interval of two months, another course may be given with safety and sometimes with benefit. Benefit is sometimes to be derived from phosphide of zinc in these cases.

A form of treatment not to be overlooked, and which is of great service in some of these cases, is the constant Galvanic current to the spine, and the Faradic brush to the body. Then, too, the actual cautery applied to the back occasionally relieves the pain and retards the advancement of the affection.

CLINICAL NOTES FROM PRIVATE PRACTICE.

TREATMENT OF CHOLERA INFANTUM.

[DR. C. S. COPE, of Ionia, Michigan, read a most interesting and scholarly paper on Cholera Infantum, before the Union Medical Society of Northern Michigan, in its session at Howard City, July 19. Lack of space will not permit our reproducing the essay in its entirety, but we extract therefrom DR. COPE'S comments as to the agencies to be employed in combatting this dire malady.—ED.]

Let us carry our patient to the country, to the hills, to the mountains. If that is out of the question, let us take it to the coolest and best ventilated room in the house; or if the weather is pleasant, out onto the lawn in the shade of the trees, and keep it there till the chilly dews drive us into the house. I have carried children, ill with this disease, out under the starry heavens up on the treeless plains of far-off Dakotah, and hour after hour watched them come slowly back to life, invigorated by the cool breezes that came to compensate for the depression caused by the heat of the noon-tide sun. I have carried them out under the trees in Michigan, and found it better for them than the pent-up air of four walls.

The first desideratum is pure air. The next a cool temperature. Both fever and thirst cry out for liquid to assuage their demands.

This can be administered by means of the cool bath. If there is no immediate danger of collapse, or great prostration be not present, the child can be immersed in water at 100° F., which can be slowly cooled by cold water, or ice, till it sinks to 80° or 70° F. Let it remain seven or eight minutes. Repeat this from time to time, as the case demands. There is present, always, much exhaustion. Give spirits and give plentifully—it is both food and stimulant, and keeps up a good circulation, which aids to prevent the hypostatic congestion of the lungs. Whiskey and water, or brandy and water, may be given frequently in small quantities: some children will bear ten to twenty drops of

brandy at a dose. Bathe the surface of the body frequently in alcohol and water, between the baths by immersion.

The medicines to be given are opium and bismuth. These may be united in a mucilaginous mixture—or given separately if preferred—and given as indications require.

Opium is a potent drug, but is fruitful of bad results if injudiciously used. Many melancholy results have attended the unguarded administration of opium to infants. All I can say is: "be guarded." First look at the baby, and then at the opium, and calculate just how much you dare give; then watch every dose, and know for yourself just what it is doing; see that it does what you wish, and no more. Enemata, also, are useful, and may be used with excellent results. The following injection has proven of good service in my hands:

℞ Argent nit., gr. j.
Bismuth subnit., ʒ ss.
Mucil. acaciæ,
Aquæ, ää ʒ ij.

M. Sig.—Shake the bottle; use ¼ to ½ of this at one time.

To this may be added laudanum, as the age and condition of the child will warrant. Before using, wash out the bowel with a weak solution of common salt and water. This will prevent irritation and tenesmus, due to the nitrate of silver. Be sure, also, to protect the clothing and bedding from silver staining. Bismuth in large doses, free or combined with other medicines, has been found reliable for both vomiting and purging.

Carbolic acid in small doses, and minute doses of calomel frequently repeated, will often arrest vomiting. Mustard water or a hot spice-bag applied to the epigastrium, will be of service.

Food and drink should be withheld, or given sparingly. Let them be taken cold. Small lumps of ice with a little brandy and water may be allowed. If the child is bottle-fed, let it have a wet-nurse if possible. If this is out of the question, then give it cow's milk. That from a herd is preferable to that from one cow alone. To this add lime water sufficient to neutralize the acid present in the milk. Dilute with warm water that has previously been sterilized by boiling. During the first week after birth, let the proportion be ¼ milk, ¾ water, with a little sugar added. Increase gradually so that by the fourth week it is ½ milk; at the end of third month it is ½; ⅝ to ¾ by sixth month; after that pure milk may be allowed, but it will be found wise to order a partial dilution after that period if there is any disturbance of digestion.

Peptonizing milk has come to be looked upon with much favor by our best authors and writers on pediatrics. By this process cow's milk is made to more nearly resemble the lacteal fluid of the human mother. LEED'S method, as suggested by SMITH is as follows:

One gill fresh milk from a healthy cow; one gill fresh water; two tablespoonfuls of rich cream; 200 grains of milk sugar; 1½ grains extractum pancreatis; 4 grains bicarbonate soda. Put this in a nursing bottle. Place the bottle in water made so warm that the hand can not remain in it one minute without pain. Keep the milk at this temperature for exactly 20 minutes. It is now ready for use. It should be prepared fresh every time it is needed.

I shall not dwell further on infant foods. The list annually grows larger. The results of investigation by our best authorities, show that those foods which contain the greatest per cent. of cow's milk are the best.

Let me revert once more to the use of opium. The first indication of stupor or drowsiness, of contracted pupils or rolling of the head upon the pillow, are imperative signs for its discontinuance. The following from SMITH has been used many times with good results:

℞ Tr. opii deodorat., ♏xvj.
Bismuth subnit., ʒ ij.
Syrup simp., f ʒ ij.
Misturæ cretæ, f ʒ xjv.

M. Shake thoroughly, and give one teaspoonful every 2 or 4 hours; at six months of age, half of this dose may be given; at 3 or 4 months, quarter of the amount.

To arrest the vomiting the following may be used:

℞ Bismuth subnit., ʒ ij.
Spts. ammon. aromat., f ʒ ss–j.
Syrupi,
Aquæ, ää ℥ j.

M. Sig.—Shake the bottle. Dose, one teaspoonful every half hour or hour; with each dose add a small piece of ice.

Carbolic acid and lime water, in the proportion of two drops of the former to two ounces of the latter, may be given in ¼–½ and 1 teaspoonful doses, mixed with milk prepared as has been mentioned, or with breast milk.

In the February number of the Satellite of the Annual of the Universal Medical Sciences, the hydrate of cocaine is mentioned as a remedy for cholera infantum. Dr. HERR (Odessa) says he uses it successfully in cases where the limbs are cold, the eyes sunken, face cyanotic, and pulse very rapid. His dose is a centigram every hour or two, as indicated.

Since reading that article, I have made use of a 4 per cent. solution of muriate of cocaine, giving from two to five and ten drops every hour or two in the worst cases, and have not yet lost a patient. However, I did not use this remedy alone in all cases, as I was afraid to rely too much on a new remedy. But there have repeatedly been times and stages in wast-

ing diseases where I have used this alone, with marked results.

In one case of cholera infantum, occurring last season, everything else was discarded except brandy, and the child was brought back to life from an apparently death-stricken condition.

I believe, in cocaine we have a useful remedy, one destined to be a powerful auxiliary in our warfare with disease—a medicine that can be relied upon when all others fail.

HINTS ON THE TREATMENT OF URETHRITIS.

FREDERICK W. ROBBINS, A. M., M. D., (Detroit) says: I am often asked my method of treating gonorrhœa, gleet or stricture; and such a question, I confess, always staggers me, for a short specific answer can not be given with justice to the subject, or satisfaction to the inquirer. I will attempt, however, to define some general principles that govern the matter, prefacing however, with the statement, these principles are not original with myself; the originality is in adapting the methods to the needs of the individual.

CASE 1. Typical urethritis, anterior, acute; purulent discharge which has been noted for one day only, although for a couple of days previous, suffered pain on passing water. Where possible, it is desirable to demonstrate the presence of gonococci, excluding the possibility of non-venereal origin, but to most busy practitioners this is impracticable. Some are accustomed to employ antiseptic or astringent injections, but experience and reason lead me to believe this to be a vicious practice in general. The gonococci are not only within the urethra and on the surface of the mucous membrane, but within the epithelial cell itself, protected from injury from corrosive sublimate injections; while injections of any kind are often the direct cause of posterior urethritis and epididymitis.

Some question the value of any medication during the first week, but I believe that ol. santalii or copaibæ, which can be nicely given in capsules or on lump sugar, relieves the urethral irritation and modifies to some extent the discharge. In this case, having given copaiba, ♏ xv, on sugar four times a day (and liq. potassæ, ♏ x, t. i. d. to neutralize the extreme acidity of the urine), for two weeks with gradual improvement, I ordered potassium permanganate, 1-2000, ter in die, as an injection, following in a few days with zinci sulph. gr. i ss—℥ i, later increasing its strength again to gr. iii—℥ i. After seven weeks not a trace of pus was found in the urine. Let me say here that I do not discharge a patient as cured when the discharge has ceased, but when the first water passed in the morning shows no trace of pus.

CASE 2. Urethritis anterior chronica:—History of gonorrhœa two years ago; comes with a discharge of six weeks standing. To determine definitely the diagnosis, the patient was made to urinate in two glasses. The first portion was purulent, but the second perfectly clear, proving there was no posterior urethritis. An injection was ordered of potassium permanganate, 1-2000, a stronger solution to be used in a few days if not cured immediately. If the urethra is narrowed before the injection, I employ the sounds.

CASE 3.—Anterior urethritis chronica, with stricture of meatus. A No. 20 French sound passed the meatus with difficulty. Thinking the stricture the cause of the chronic urethritis, I divided it until a No. 20 F. sound could be passed with ease into the bladder. The next day there was a slight fever, but within a week the patient was well, the urine passing perfectly clear.

Here we have three cases, types of those seen by the physician nearly every day. To these I will add one other—that of a private patient just discharged cured. He had gonorrhœa many months ago, and a large calibre stricture near the meatus which had been cut. Had been treated by a number of physicians with internal medicine, cold sounds, and injections, and was discouraged. On patient urinating in two glasses, both portions were found cloudy, not with phosphates—a possible source of error—but with pus. He had no symptoms of cystitis—a very rare disease following gonorrhœa. He had an inflammation, acute or chronic, posterior to the bulb of the urethra, just back of which are the strong muscular fibers producing the anterior sphincter. Any pus forming back of this sphincter, is driven back into the bladder, and will be found with the last portion of urine. This condition cannot be relieved by injections, but internal medication may be of value. Occasionally the passage of cold sounds will be sufficient, but the most scientific and satisfactory method is, to make our applications directly to the diseased membrane. With this patient I passed the Ultzmann silver catheter, drew off the urine, and, attaching the rubber tube, with a large syringe injected into the bladder from 4 to 8 ounces of nitrate of silver solution (1:2000), making the application twice a week, gradually increasing its strength to 1:500. This, after retaining for a few moments, is passed, thus medicating the entire urethral tract. With no other medication, in a few weeks my patient was well. Other astringents can be used in place of the silver nitrate, and a flexible catheter with ordinary syringe answers all needful purposes.

If the urine is not generally purulent, but contains strings of pus, it is evidence there are small points of ulceration. In this case I make an application of a stronger solution of silver

nitrate in the posterior urethra (1:100), or cupric sulphate by means of Ultzmann's capillary injector; if an anterior urethritis, by urethroscope and brush, directly to the diseased point.

I desire to emphasize that, in the proper treatment of urethral diseases, the surgeon must take the trouble to make an exact diagnosis, and treat accordingly. By so doing, he will prevent many a stricture, and save many a man from premature impotence.

ACUTE GENERAL PERITONITIS FOLLOWING FÆCAL OBSTRUCTION.

Mrs. O. E. S——— (æt. 34; robust, brunette; weight 160 lbs.). Patient some eight years ago had an attack of peritonitis following miscarriage at six months, but after an illness of five weeks fully recovered.

She had been accustomed to have an evacuation early in the morning, but unaccustomed late rising destroyed this function, and she finally became obstinately constipated. Suddenly, on the night of May 23d, she was seized with severe epigastric pain and violent vomiting. She evinced great restlessness and seemed apprehensive of coming trouble. Had a few light motions of the bowels. The vomiting was at no time stercoraceous. No fever during entire sickness. No collapse. Pulse throughout from 85 to 98.

For three or four hours an attempt was made to evacuate the bowels with soap-suds enemata and powerful cathartics—all of which proved unavailing. The pain and vomiting increasing, the administration hypodermatically of controlling doses of morphine and atropine was begun. Turpentine cloths wrung out in hot water, were applied to abdomen. This treatment was continued till pain ceased, June 2d. After the fourth day of the inflammation, meteorismus became marked and continued to increase in severity till the tenth day. Now a consultation was demanded, and Dr. Groner, of Big Rapids called, when it was decided to evacuate the rectum and colon with the long rectal tube, using hot soap-suds. This was partially successful. These enemata were used three times a day for nearly three days, when it was evident they had ceased to be beneficial, the relief afforded being but temporary, and the abdominal distention becoming more distressing; further, the bowels failed to contract on account of paralytic distention. It was next decided to perform paracentesis intestinalis. Accordingly Dr. Groner punctured the middle of the descending colon, and the ascending colon just above the cœcal valve. A large flow of fœtid gas was secured by this means—giving the patient great relief. This was followed by an injection, high up in the bowel, of one pint of linseed and four ounces of castor oil. A small amount of fæcal matter of bullet form was removed. In spite of all this, the meteorism was worse in three days than it had been at any time. I then punctured the bowels in two points, one 2½ in. above the umbilicus, the other 3 in. below the same point—both in the median line. From the upper puncture the escaping gas was unimaginably offensive, and a little brownish liquid followed the gas. This was probably the site of the obstruction. The gas from the lower puncture was not so disagreeable. The abdomen almost completely collapsed, and I gave another enema, and succeeded in bringing away, as the patient said, "almost a whole pail full" of fæculent matter. The danger was practically over with at this happy turning. She began, on the fourteenth day, to receive nourishment, but unfortunately ate so much that the upper intestine became partially loaded; gas reformed, tympanites bad as ever, respiration and heart's action hampered. I again punctured 2½ above umbilicus just over abdominal aorta. The needle rose and fell with the pulsations of this artery—producing in the operator unpleasant but evanescent horripilations. The gas removed had the same horribly fœtid odor. A few more enemata and the bowels, with the aid of castor oil, were finally emptied. Abdominal tenderness remained for five or six weeks.

The form of rectal alimentation employed consisted of bovinine, ℥ ss; sp. frument. ℥ ss; milk ℥ ii; lactopeptin, gr. v; every four hours. She lost very little flesh during her illness.

There was a complication which I have failed to notice—viz., double metastatic parotitis. Both glands suppurated, and were incised, irrigated daily with carbolic lotion, 1 to 40, small drainage tubes inserted, when they healed without trouble.

John Snyder, M. D.

Mecosta, Mich.

THE SUPPOSED DIURETIC EFFECTS OF GLUCOSE.

Since reading the very interesting article from Germain See, published in the August number of Medical Age, on the diuretic action of lactose and glucose in cardiac dropsies, I had an opportunity of testing the latter (glucose being preferred to sugar of milk, by Dujardin-Beaumetz), in a case of atheroma and hypertrophy with œdema of the legs.

Patient 69 years old, had been treated with digitalis and iron, but as these drugs did not agree with him, caffeine, convallerin, corn silk, and the potassa salts were substituted, which augmented the quantity of urine to seventeen ounces daily. Urine contained only a trace of albumen, but an abundance of earthy phosphates. Patient took 100 grammes pure glucose in two litres of water during 24 hours, but it failed to produce the desired result—it *did not* augment urination any more than the diuretics previously used. Due to the large

amount of fluids imbibed, patient complained of a fullness and oppression, also of slight spasmodic pains in bladder, with constant desire to urinate, passing but little fluid at a time. These symptoms subside on the following day after taking the solution. The result might have been different if I had used sugar of milk in place of glucose, as the incomplete diuresis I obtained in this case by the use of the latter could not have been due to any serious lesion of the secreting structure of the kidneys.

That sorghum molasses (which as is said, contains much glucose), freely used when first boiled and still warm, acts as a strong diuretic in healthy subjects, is an established fact, but why this syrup loses its diuretic properties, when a few weeks old, I cannot understand.

Water melons, and the syrup prepared from them, as is well known, will, when freely eaten, produce in most persons free diuresis, due to the saccharine matters they contain, but are unluckily not well tolerated by persons suffering from dropsical complaints, as they cause flatulence and digestive derangement.

If analyzed, to what element do sorghum and watermelons owe their diuretic properties? An extract might be prepared from them, that perhaps would be equally effective if not more so, than sugar of milk.

Fluid ext. corn silk, is a harmless and excellent diuretic in many heart and renal diseases; the failure of this drug is often due to an unreliable article, prepared from corn silk gathered at the wrong time.

A. Crull, M. D.,

Dittmers, Mo.

PERSISTENT ALBUMINURIA.

June 17th, called in to Mrs A. for anasarca of lower extremities. Tested the urine and found albumen in large quantities. She was expecting to be confined about the middle of August, and apprehending convulsions. I put her upon:

℞ Acid benzoic, ʒ ijss.
Vin. colchici., ℥ ss.
Fl. ext. cimicifugæ r., ʒ j.
Glycerin, ʒ ss.
Mucil. acaciæ ad ℥ viij.
A dessertspoonful every 3 or 4 hours.

Slight diminution in amount of albumen; anasarca increased; and ascites commencing, I added fl. ext. digitalis, ℥ij. to each dose, and applied ol. juniperi over the kidneys. July 1st, ascites much increased: Stopped the mixture, and gave:

℞ Fl. ext. scoparii, ʒ j.
Pot. acetat., ℥ ss.
Pot. nit., ʒ ss.
Infus. juniper ad ℥ iv.
A tablespoonful every 3 hours.

Increased flow of water; ascites increasing rapidly; albumen the same. July 6th, labor set in; only a few pains. Child small and weak; only lived three days. July 8th.—Flow of milk commencing, I gave fl. ext. phytolacca internally and externally, which had the desired effect of drying up the breasts. July 15th.—Dropsy and albumen unchanged. Gave hydrarg. submur., grs. v., and repeated it in six hours, the mouth being repeatedly washed with pot. chlorat. Albumen totally disappeared, but returned as bad as ever in 48 hours. 12th.—Dropsy coming down slowly; ℞. Apocyni cannab, ♏x. every 4 hours. Dropsy coming down rapidly, but albumen the same. Gave the hydrarg. as before, with the same results: albumen disappearing, but returning in less than 48 hours. Dropsy all gone. Aug. 2d, returned to first prescription. Albumen has diminished gradually to about one-half its former bulk; there has been no diminution for the last four days. The digitalis has been kept up nearly all the time. Health and appetite remarkably good.

Now what is to be done with this albuminuria? Can you give any advice on the subject, or will any of your readers kindly do so? In 29 years I never came across a similar case.

I omitted to state that I changed the ol. juniper over the kidneys for tinct. iodine, two weeks ago.

H. J. Nash, M. D.

CASCARA SAGRADA IN MIGRAINE.

I wish to enlighten the profession in regard to the effects of cascara in sick headache. Having been troubled with migraine at intervals of three weeks for several years, a few years since, I discovered that cascara was a specific in my case, as I have not suffered from it since I began using. Whenever I feel the symptoms I take a teaspoonful of the fluid extract, and in an hour am relieved. I can point to many that have used, and are using, for the same malady.

Dr. S. E. Morgan.

Howard City, Mich.

MULLEIN LEAVES IN DIARRHŒA.

Dr. David H. Coover, of Harrisburg, Pa., writes that while in Chicago his wife was troubled with very obstinate diarrhœa, which he tried to suppress in vain. Finally he obtained a package of mullein leaves (*Verbascum thapsis*), and boiled into a tea. The effect was immediate in checking the diarrhœa. He remarks also that mullein tea is extensively used for sprains, galls, etc., in horses, with very flattering success.

Correspondence.

DIPHTHERIA CONVEYED BY CATS.

Dr. LAWRENCE, of Halstead, Ks., writes that last winter he was called to attend a little three-year-old girl suffering with diphtheria. Upon careful inquiry it was found that she had not been exposed to the disease, although there were some cases within a mile of her father's house. He incidentally learned that there was a sick cat in the house, which had been fondled by the little girl some days before. The cat died shortly after its playmate became sick, and a second cat also became sick and was killed. Suspicions were aroused that the disease was conveyed by the cat, and inquiry revealed the fact that one neighbor farmer had lost seventeen cats, and another fifteen, with some throat trouble. One of the farmers stated that he had examined the throats of some of the cats, and found them covered with a white membrane. The little girl died, and her little brother a few days later had a severe attack of the same disease. Cats are disposed to run from house to house at night, and one diseased cat may be the means of carrying diphtheria to half the cats in a neighborhood, they in turn carrying it to the children whom the parents are taking every means to protect from danger. It is well to keep an eye on the cats in times of diphtheria.

ON SALICYLATE OF BISMUTH IN CHRONIC DIARRHŒA.

In the Meditz, No. 2, 1889, p 1, Dr. S. MIKHAILOFF, of St. Petersburg, warmly recommends the treatment of obstinate chronic diarrhœa by the internal administration of salicylate of bismuth, in six grain doses, given thrice a day. He adduces, for the sake of illustration, the striking case of a gentleman, aged 55, who had been suffering and treated from diarrhœa since he was 25, when he had had an attack of Asiatic cholera. After all possible means had been successively tried, in vain (by numberless doctors of "several generations"), the administration of the salicylate was followed in a week by marked improvement, and in a few weeks by permanent cure (about 1½ year has passed since the disappearance of his diarrhœa). The case is regarded by Dr. MIKHAILOFF as "some affection of the large bowel," depending upon "some morbid fermentation." The drug was selected (in view of researches by VULPIAN, BOUCHARD, and DUJARDIN-BEAUMETZ) as one of such antiseptic substances that may pass through the upper portion of the digestive tract in a more or less undecomposed state. The author adds that he obtained singularly excellent results in a good number of cases of the sort. W. P. B.

The Medical Age.

A SEMI-MONTHLY REVIEW OF MEDICINE.

B. W. PALMER, A. M., M. D., Editor.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

DETROIT, MICH., SEPT. 10, 1889.

Editorial.

THE DISPOSAL OF SPUTA OF PHTHISIS.

The subject of the disposal of the sputa of phthisical patients, still agitates the medical world, more especially the profession abroad, who are not quite so apathetic in the prophylaxis of infectious diseases as their American brethren.

ARTHUR HILL HASSALL, M. D., writing to the Lancet (July 27, 1889,) sums up the question as follows: "On no account should patients expectorate on the floors, carpets, and, above all, into handkerchiefs. It is indeed from these last that the greatest danger is to be apprehended. It should be made an invariable habit by day, and, as far as practical, even at night, to expectorate into spittoons. These receptacles should be always partially filled with water so as to avoid the drying of the sputa, and they should be emptied and thoroughly cleansed daily by scalding with boiling water. It is not necessary that the water should contain a disinfectant, but, if any be used, it should be one which would be really effective and free from all disagreeable odor. Perhaps the best germicide is a strong solution of perchloride of mercury; this should be freely added to the water in the spittoon each morning before use. The use of cloths (as is the common practice) to wipe out these receptacles, should be strictly prohibited, as these cloths might, like the handkerchiefs, become a source of danger.

"The question now arises, in what way should the contents of these spittoons be disposed of? The safest and surest plan is the complete destruction, and this object may be accomplished in the following manner: A covered vessel, preferably of glass, of suitable size and provided with a rod, should be partially filled with a strong solution of perchloride of mercury, and into this vessel the contents of the spittoons should be daily emptied, until it becomes necessary to dispose of the accumulated but now harmless sputa, which may then

safely be done by means of the closet or the soil. The use of the stirrer is necessary in order to break up the sputa and allow of the effective action of the germicide.

"The linen worn by phthisical patients should be kept entirely apart, made into a separate bundle, and not sent to an ordinary laundry. It should be washed, with certain precautions, either at home or in a special laundry. The handkerchief—which should, as far as possible, be altogether dispensed with—should never be allowed to become dry, but be at once wetted, even before being conveyed to the laundry; and no handkerchief should be in use longer than a day.

"In rooms occupied by consumptive patients, carpets, curtains, rugs, etc., should be dispensed with as far as practicable, the sheets and night clothing frequently changed, and the rooms themselves thoroughly purified, the floors and walls being well and frequently cleaned and dusted. In the case of death from phthisis, the bedroom should be treated in very much the same manner as in the case of a contagious malady.

"In hospitals for consumption some few regulations have been more or less in operation for some time. The floors of all rooms, wards, and corridors should be frequently cleansed, and the walls, even to the ceilings, thoroughly dusted at least twice a week, and as far as practicable in the absence of the patients. Not only should each patient be provided with a spittoon for his own special use, but other spittoons should be placed in the corridors, closets, and all other suitable places; these should be partly filled with water, and never, as is often the case, with sand, sawdust, ashes, and such absorbent substances. These receptacles should be emptied daily, thoroughly cleansed, and disinfected in the manner before described. Expectorating on the floors, into the grates, or on the garden walls and public promenades, should be strictly prohibited under severe penalties. Again, every hospital should have its own well-appointed laundry, to which all the linen of the patients should be sent and specially dealt with. For the reception of the soiled linen, each patient should be provided with a closed box—not a basket,—and the contents of this should be conveyed daily in covered receptacles to the laundry.

"Another matter requiring serious consideration, is the possibility of the communication of tubercular disease through the medium of the sputa to certain domestic animals, and from these again to the human subject. Such a result may occur where such animals are kept in the grounds belonging to a hospital, the soil and herbage being liable to be contaminated with expectoration."

THE PATHOGENY OF NEURALGIA.

We know very little about the material alterations which attend neuralgia. We distinguish three phases in the operation of sensory nerves:

1. When the conduction is normal. Here the nerve conducts to the cerebrum impressions natural in quantity and in quality; the resulting sensations are pleasurable or indifferent. Such normal conduction is a necessary condition of that correspondence between the organism and its environment which enables the former to adjust itself to changes outside of itself. A stimulus (heat, cold, a touch, some chemical or mechanical irritant, etc.), produces a certain effect of a chemical, molecular kind on the terminal filaments or trunk of a sensory nerve—this molecular change is propagated as a wave of motion to the cord and sensorium, where it produces the appropriate sensory-motor responses; there is a definite ratio between the stimulus and the effects engendered.

2. When the excitability is exaggerated. This state is called hyperæsthesia (excessive sensibility). The functional activity of the nerve is exaggerated from intensity of the excitation. When this hyper-sensibility reaches a certain degree it becomes pain, but this lasts no longer, or but little longer, than the excitation which has given rise to it. Instances of this functional hyperæsthesia are seen in all inflammations and lesions attended with pain.

3. When the conduction is abnormal, and the resulting sensations are the consequence of a morbid irritability of the nerves and nerve centres. This form has been called by JACCOUD "spontaneous hyperæsthesia," and characterizes all the neuralgias, "A morbid hyperæsthesia raised to the potency of spontaneous pain constitutes neuralgia." The word *spontaneous* as here used does not imply the absence of every cause capable of accounting for the anomalous state of the nerve, it indicates simply that this anomalous state is not linked to the exercise of the function of sensibility, as is the case with a pain occurring in connection with the inflammation of a part.

It is difficult to find illustrations which can make plain the difference between these several modes of conductibility and the consequent states of consciousness.

If we place a number of marbles in a row, an impulse at the proximal end of the line will be transmitted to the distal end with a quality and intensity corresponding to the force communicated to the first marble of the series. We may suppose the molecules of a sensory nerve to be so arranged that an agitation at the peripheral end is similarly transmitted. Impacts beyond a certain intensity might produce at the central end a shock which would so disturb the sensorial centres as to give rise

to the phenomenon of pain; and yet there would be a definite correspondence between these central molecular disturbances and the amounts of peripheral irritations. If we could imagine that each marble of that row was composed of something akin to *dynamite;* that there were irregular, fitful explosions all along the line from the most trifling cause, and that the quantity and intensity of the disturbance at the distal end would bear no proportion to the force which started the disturbance, we should have perhaps a faint notion of the condition of the perturbed sensory nerves in a case of neuralgia. There certainly is no objection to the hypothesis—which alone explains the facts—that the protoplasmic molecules of certain portions of the sensory apparatus in neuralgic patients are in a state of peculiarly unstable equilibrium, at the least provocation falling to a lower plane and liberating force which is propagated as a motor-wave to the central end; that such nerves are by this very instability and explosiveness ill-fitted for their ordinary function of conductors of sensory impressions, while always predisposed to be the seats of violent attacks of spontaneous pain.

Writers have objected to the word *hyperæsthesia* as used in connection with the pain of neuralgia, and VAULAIR has substituted the word *hyperalgesiæ*. If the term be supposed to mean *exalted function*, it is manifestly inappropriate; if *exalted irritability*, it is perfectly proper. It does not require a wide familiarity with various kinds of pain to convince one that where there is pain there is increased excitability of a certain nerve or nerves: nor is it difficult, from personal experience, to recall instances where this hyperæsthesia, by the very fact of intensification, has run into pain, as in the sensory hyperæsthesia attending an ophthalmia. The pains from palpable organic causes imperceptibly shade into those properly regarded as neuralgic, and there is no absolute line of demarcation at the origin. All kinds of pain have for their direct antecedent, excessive molecular transformation, and all are markedly influenced by anæsthetics, by quiet, absence or removal of stimuli; in fact, some pains of an undoubted neuralgic character get well as soon as all peripheral excitations are removed.

The causes of neuralgic hyperæsthesia may be arranged in three orders:

1. Intrinsic and primary modifications of the excitability of the nerve itself in some part of its tract, from its gray nucleus of origin to its terminal expansions.

2. Extrinsic lesions, which act directly or indirectly by reflex action.

3. Constitutional states which modify the nervous excitability, generally by the intermediation of an alteration of the blood.

The first group contains the primary, or essential, neuralgias; the other two groups, the secondary, called sympathetic or symptomatic neuralgias.

An example of primary idiopathic neuralgia is seen in face-ache (prosopalgia) from cold. Examples of neuralgia due to extrinsic lesions acting directly, are seen in attacks of prosopalgia starting in dental caries, or a tumor involving a branch of the trigeminus; such lesions have been known to awaken neuralgic paroxysms indistinguishable from those of idiopathic prosopalgia. Illustrations of neuralgia from reflex causes are seen in trigeminal, cervico-brachial, or intercostal neuralgias, originating in ovaritis, or some other affection of a remote organ.

Examples under the third head are seen in neuralgias due to lead poisoning, mercurial poisoning, syphilis, or malaria. JACCOND even classes neuralgias accompanying anæmia under this head, although more authorities would put them in the first division, *i. e.*, of primary or essential neuralgias.

Is it possible, from the knowledge which physiology gives us of the constitution of nerves, to come any nearer to an understanding of the phenomena which take place in neuralgia?

The conductibility of nerves is a property inherent in the axis cylinder, which is the central core of the nerve, and is composed of protoplasm. The ultimate peripheral termination of sensory nerves is the naked axis cylinder. On these protoplasmic filaments, which in many parts of the body terminate in sundry appliances (Paccinian corpuscles) which are "multipliers of disturbance," and have the function of concentrating on the nerve ends the action of external agents, cause a multitude of impressions from the outer world, from the tissues in which these nerves ramify, and from the circulating blood. What is the kind of change which is produced when an impression, as of contact, of heat, or of cold, is made on these sensory filaments? The only tenable supposition is, that a wave of molecular disturbance—akin to the modification that takes place in a telegraph wire when a message is sent—is instantly propagated the whole length of the nerve to its central nuclei. In the normal state a nerve apparatus which is the seat of such changes, not inaptly called "isomeric transformations," speedily reintegrates itself from the circulating blood, and the disturbance does not exceed the healthy mean; there is no pain. How is it when, from natural or acquired instability of the nerves, there is too much molecular transformation?

HERBERT SPENCER remarks that "the (peripheral) afferent nerves of individuals who, though otherwise healthy, have lax tissue, are often unduly impressible." Other causes besides "lax tissues" may produce this excess of

impressibility. It may accompany vaso-motor weakness and congestion, for local excess of blood is attended with local exaltation of sensibility. We have to note, also, the seemingly anomalous fact that local deficiency of blood, as in anæmia, renders the nerves abnormally impressible. Ordinary excitants are capable of producing an extraordinary amount of molecular change. Cold, which is one of the normal excitants, may, by its prolongation or intensity, bring about that excessive transformation which finds expression in a neuralgic paroxysm. A mental shock, a physical injury, even a decayed tooth, may start a disturbance in certain nerve branches which, not being repressed by the higher nervous energies, coordination being weakened or broken, soon amounts to a riot in the organism; the central sensory centres are fatigued, overcome, charged with the products of disintegration, and brought to that state of molecular disorder which constitutes *algesia*, and whose conscious expression is pain.

But it will not do to lose sight of the fact that neuralgia may begin centrally as well as peripherally, in a lowered state of nutrition, and in resulting dynamic perturbation of the central gray nucleus itself. This is, however, not the ordinary mode of onset of neuralgia.

The above conception—instability of the ultimate nerve elements, broken coördination, brings neuralgia into harmony with the other neuroses, epilepsy, hysteria, chorea, etc.

The intermittency of pain is a consequence of the intermittent character of nerve action. "If," says HERBERT SPENCER, "a nervous disturbance travels as a wave of molecular change; if this wave is such that the molecules of nerve substance fall from one of their isomeric states to the other; then, having fallen, in passing on and increasing the shock, they remain incapable of doing anything more until they have resumed their previous isomeric state."

But how may we account for the peculiar character of neuralgic pains? The pain of a neuralgic paroxysm is something different from the pain of an abscess in an otherwise healthy individual, or the pain of a pleurisy. The pain of neuralgia may be decomposed into a permanent pain, and, at certain moments, aggravations of this pain of the nature of spontaneous recrudescences. Moreover, the neuralgic suffering is attended with painful irradiations into neighboring nerves of the same branch and soon into other nerve trunks and their branches.

The explanation must be sought in the constitutional state of the subject whose neuro-mechanism is in the peculiar condition of instability and impressibility before alluded to, —responding to irritants in a fitful, disorderly and excessive manner, then, for a brief time becoming exhausted till sufficient material has been assimilated for another series of discharges. The phenomena of diffusion and irradiation is accounted for by the intensity and *quantity* of the molecular motion liberated—waves from one set of nerves being reflected on other sets of nerves. According to this view, the phenomenon is one of peripheral transfer —of simple overflow. ERB, however, has another explanation. In these cases of irradiation, we have to do with a transfer of the excitation from the central cells to other cells also central, but corresponding to other nerve branches, and the sensation is referred to the periphery of the latter in virtue of the law of eccentricity. But it would seem that this explanation, as well as that before given of peripheral transfer, is not so applicable to painful irradiations as to simple diffusion of pain. Perhaps the explanation given by VAULAIR may be deemed the most satisfactory. Every nerve of sensation exchanges recurrent filaments with the neighboring branches. In an algesic condition, the recurrent filaments may be spared, if the excitation does not exceed a certain degree of intensity. If however, the excitation becomes too vehement the cells of the recurrent system of nerves will take on in their turn the algesic state, to become quiet again when the hyper-excitation shall have ceased.

A similar use is made of these recurrent filaments in explaining the *points douloureux*. These filaments lose themselves suddenly in the tissues surrounding the nerves in the vicinity of a foramen of emergence; subcutaneous tissue, periosteum, neurilemma. If the recurrent filaments become the seat of a neuralgic process, the least pressure exercised on the tissues in question, or even the normal tension of the parenchymata or of the blood will always affect in an algesic sense a part of the fibres which form this sort of terminal tuft. The impression will be transmitted to the central cells, and these, by virtue of the law of eccentricity, will refer the painful sensation to the periphery, to the very point irritated.

STYRONE: A NEW ANTISEPTIC.

Dr. H. H. A. BEACH announced to the Boston Society for Medical Observation, in 1879, the antiseptic value of *Styrone*, or a compound of styrax and balsam of Peru, but owing to the cost of production, there was little demand for the drug. Now that it can be prepared at a reasonable figure, it bids fair to enter into competition with other antiseptics, notably those whose odors are objectionable, or that are feared because of their toxicity.

The origin of styrone suggests the reason for the employment and effectiveness of the bal-

sains in ancient, and even modern, surgical dressings.

As an antiseptic, Dr. BEACH claims for it three important advantages:

1. Efficiency.
2. Non-poisonous character.
3. Agreeable odor.

Surgeons universally admit the desirability of an agent offering adequate protection to wounds, and known to be devoid of toxic properties. A fluidounce administered internally to dogs, procured no unfavorable results. As a deodorizer of foul and offensive wounds or ulcers, particularly those associated with malignant disease or necrosed bone, it is as prompt, effectual, and lasting, as either of the poisonous or offensive smelling applications in common use. Its odor is not unlike that of cinnamon water. In ulcerating cancerous growths, it may be conveniently sprayed upon parts too sensitive to bear the douching necessary for clearing the surface of decomposing discharges. The following formula has been found useful in such cases, with the addition of morphine as required:

℞ Styrone, ℥ i.
Glycerin, ℥ i.
Distilled water, ℥ i.
M.

"To a raw surface, pure styrone is somewhat irritating; but in the form of an emulsion with olive oil, water, or liquid vaseline, it may be applied freely to open wounds. In the pleural and peritoneal cavities where the greatest opportunity is offered a *poisonous* antiseptic for absorption, it may be freely used without danger. One part to twelve, with water is sufficiently strong to completely disinfect a foul and ulcerating surface. Its action upon the cholera bacillus is so marked, that a trial of it in cases of Asiatic cholera is indicated. It may yet corroborate the brilliant discovery of KOCH by killing the bacillus with which he explains cholera, and, curing the patient. A solution 1-60, with a small proportion of glycerin added, tastes agreeably, and has a gently stimulating effect upon the mucous membrane of the mouth, not unlike that of ginger syrup."

Dr. BEACH further remarks:

"I have known it to give great relief, with diminution of cough and expectoration, in a number of instances where the patients were subjects of phthisis, no other medicines being in use at the time. It may be substituted for carbolic acid in gargles requiring antiseptic action. I have excised the female breast repeatedly, and after tying all vessels, washed out the resulting cavity with styrone and liquid vaselin (1-12), closed the wound with catgut sutures, enveloping the projecting ends of the drainage tubes with a bunch of charpie as large as the list, which had been saturated with the mixture and squeezed dry, then covering the wound with two layers of sheet-lint saturated with the mixture, overlapping the incision an inch on each side. A layer of borated cotton was afterward applied to maintain an even compression. Upon removal of the dressing at the end of eight or ten days, good union without suppuration was found. No unfavorable effects from its use have been observed in any instance."

THE ELIMINATION OF MORPHINE BY THE STOMACH.

HITZIG of Halle, several years ago performed a series of experiments whereby he demonstrated that morphine, introduced into the system hypodermatically, is forthwith eliminated in considerable proportion by the stomach. These experiments have been repeated and confirmed by KONRAD, who determined the time within which this elimination takes place. After two or three minutes, a certain quantity of morphine appears in the gastric secretion; the proportion augmenting for about half an hour, then progressively diminishing, after an hour no trace being found.

The vitality of morphine thus eliminated is considerable, and may amount to half the quantity injected.

It appears that the nausea and vomiting attending the employment of this drug hypodermatically, are determined by elimination by the stomach, for these symptoms disappear after the latter has been washed out.

KONRAD supposed that the symptoms of poisoning might in large part be got rid of in this way, and experiments on animals and man proved this as a fact. Doses of the alkaloid that would otherwise have been fatal were tolerated with impunity in connection with lavage practiced several times within an hour or two.

THE NEW ANTIPYRETICS IN WHOOPING COUGH.

LANNELONGUE has made comparative trials in 14 cases of whooping cough with the new antipyretics.

Antipyrin was administered in doses of 10 centigrammes for each year, or about 1 centigramme for each month repeating three or four times a day, and he affirms that administered in time, the remedy influences both the duration and acuteness of the malady. In a certain number of cases the paroxysms have never exceeded five or six per day, were less severe than usual, and in three or four weeks the whooping cough disappeared. He admits, however, that in no instance was the disease aborted, neither did antypyrin prove in any way prophylactic.

Again, when the disease is at its maximum, antipyrin no longer succeeds.

On the whole, the results are favorable. The only objection to this mode of treatment, is the high price of the drug. For this reason acetanilid would be preferable, which LENBUSCHER has found to answer almost as well.

As for phenacetin he regards it as devoid of all specific value in this disease.

Book Notices.

NERVOUS SYPHILIS. By H. C. Wood, M. D. LL.D. Square 12mo.; pp. 135; cloth, 50c; paper, 25c. Physicians' Leisure Library Series. Geo. S. Davis, Pub., Detroit, 1889.

This is the initial volume for 1889, of the practical series of monographs by able authors, put forth by the enterprise of MR. GEO. S. DAVIS. The subject of Nervous Syphilis is practically new as a distinct form of neuroses, and PROF. WOOD presents the matter in a clear and forcible light. While many may disagree with him in the proposition, that toleration of the iodides is evidence of a syphilitic malady, none will deny his ability to treat of the general topic presented in a complete manner. The ground is well covered; the descriptions simple and minute; the general and comparative information exhaustive and complete without prolixity. In fact, it is one of the most "meaty" volumes we have for some time been permitted to peruse; besides, the form of presentation is such as to render the subject doubly interesting and readable.

DISORDERED DIGESTION AND DYSPEPSIA. By Frank Woodbury, A. M., M. D. Square 12mo.; pp. 99; cloth, 50c; paper, 25c. Physicians' Leisure Library Series. Geo. S. Davis, Pub., Detroit, 1889.

This brochure, equally available for secular and professional perusal and information, opens with a brief and simple *exposé* of the phenomena of digestion, of the amount and character of nourishment demanded, and the results that accrue to excessive or unsufficient ingestion of food. Following this is taken up the etiology and symptomatology of dyspepsia in all its varied forms, the facts being presented in a concise and thorough manner. The work closes with practical remarks upon dietetics that cannot fail to commend themselves to thoughtful readers. On the whole we consider this one of the most readable and practical books of the Leisure Library Series.

INEBRIETY. By Norman Kerr, M. D., F. L. S. H. K. Lewis, Publisher, London, 1889. 12mo ; pp. 470. Price 2s. 6d.

This is the second edition of this work, which is devoted to the etiology, pathology, treatment, and jurisprudence of dipsomania, and has not the most remote connection with the teetotal movement. It is simply a scientific work, formulated in a strictly scientific way, and the more valuable in that it fills a vacant place in medical and medico-legal literature, and is wholly free from hobbies, unnecessary sentiment, or partisan bias.

One hundred and thirty-two pages are devoted to Forms of Inebriety; forty-one to Predisposition and Exciting Causes; twenty to Pathology; eighty-four to Treatment; the balance to Medico-Legal Aspects, Appendix, and a thorough and comprehensive Index.

Space will not permit the thorough review that is justly the due of this work; further a review is difficult since the volume is one that requires patient and careful study of its entire contents, in order to obtain a full understanding of its conception and value. A better idea of the difficulties surrounding the preparation of the work, cannot be given, than by quoting the second paragraph devoted to the pathology of the disease, viz.: "Purely nervous disturbance, altered states of nervous fluid, and impairment of the nutrition process with changed conditions of the blood, may take place in the living subject without exhibiting any physical degradation of structure visible during life. Insanity of an incurable type may be existent beyond dispute, and yet we may be able to detect no organic or other lesion. How often in such cases has the curable stage been passed without an effort at remedial treatment, because the presence of disease is unsuspected. Even after death, in many cases of mental unsoundness, an examination has revealed no definite discernible lesion."

Our contemporary, the American Lancet, takes the ground in an editorial in the current number, that inebriates should be relegated to special work houses. We doubt the philosophy of such therapeusis, but we agree fully with the proposition that ordinary insane retreats, gaols, and prisons, are not suitable for the management of the ebriotic. Dipsomania is a disease of which the pathology is little understood, besides there are so many side issues connected therewith, notably the conditions, surroundings, etc., of the unfortunate, that the malady demands more study than has as yet been given. Partisan politics, rule or ruin ideas, and extremists, unfortunately prevail in, or altogether govern, our literature upon inebriety, and are deceptive and misleading in every sense. Under such conditions, Dr. KERR'S book is opportune and refreshing, and must needs lead to a more scientific consideration of the subject of alcoholism in all its phases; and it is hoped, also, to the securing of sufficient and appropriate means of relieving a disease frightfully prevalent in the United States, and one that entails misery and suffering not only to individuals, but to their families and friends. First of all, however, is needed strict and honest governmental super-

vision of the manufacture and sale of alcoholics, of a class that has never hitherto obtained, and such that will entail absolute purity. At present the sole standard is that of specific gravity which is inadequate to the detection of certain adulterations. Notoriously, all American distilled liquors, those derived from corn particularly, are over-burdened with amylic alcohol to a degree that renders them quintuply toxic to the nervous system.

Notes and News.

Chloralamid, a New Hypnotic.—While, at a first glance, it may seem quite superfluous to add another to the already long list of hypnotics, closer observation will show that this is not the case. Whilst, on the one hand, many lack promptness in action, on the other hand, many of those whose hypnotic action is rapid, are accompanied by such grave symptoms that their use can only be resorted to with extreme caution. The actual number of reliable, efficient, and, at the same time, safe hypnotics, is very small. The introduction of a new one, which promises to combine the above named desirable properties, should be joyfully welcomed rather than regarded as a superfluous addition.

Chloralamid, as introduced by v. Mehring, is a product of anhydrate of chloral ($C Cl_3 CHO$) and formamid ($CHONH_2$) and therefore has the formula $CCl_3CH<\begin{matrix}OH\\NHCHO\end{matrix}$. It is a colorless crystaline substance, soluble in nine parts of water and in one and a half parts of alcohol (96 per cent.). Its taste is mild and slightly bitter, but not biting. The watery solution keeps well.

Dr. Ed. Reichman reports quite a large number of cases in which he has used the drug; the dose given being almost invariably thirty grains. The hypnotic action was in all cases most prompt; sleep ensuing an hour after the dose had been taken. No unpleasant accompanying or after effects were noted. The patients awoke the next morning refreshed and feeling as usual. Sphygmographic tracings were taken during the influence of the drug, but revealed nothing but normal heart action. Reichman concludes that chloramid is a safe and rapidly acting hypnotic, when given in doses of thirty to forty-five grains. Sleep ensues in half to three-quarters of an hour, seldom later. Its rapidity of action is, therefore, equal to that of sulphonal.

The absence of all unpleasant accompanying or after symptoms, as well as the absence of any circulatory disturbances, will probably bring the drug into extensive use and make for it a place among the principal hypnotics.

The Lament of the Cultured Gonococcus.—

I.

Where schizomycetes grin in glee,
Where microbes dig their holes,
Where germs feel free to split in three
And exult in their septic souls;
Where the still small sobs of the spores endure,
Where blue bacilli bore,
Where of cultures pure, an adjacent sewer
Will always provide a score—

Some gonococci, duplex and small
(They were born at a picnic the previous fall,
And by agile turn and twist in flight
Had escaped the maw of the phagocyte),
Were mourning, each to the other twin:
"What sort of a hole is this we're in?"

II.

Time was when they lived where their fathers died,
In a urethral columnar cell,
Then woe betide, that "devil" they spied,
When they frisked in Boccacio's "Hell!"
Now, 'twas, "O for a lodge in the vestibule,
Or in glands of Bartholin!"
And 'twas, "O to rule in a Skene's tubule,
For we can't grow on gelatin!"

And 'twas, "O for the grim and fierce delight
Of a duel to the death with the leucocyte!
Once again to laugh in specific pride
At the impotent syringe and germicide!
And to mock, when our stricture fort defied
The charge of the sound and the whalebone guide!"

III.

And 'twas "O to infect the fresh, fresh youth,
And the rounder, old and gay,
And the jay uncouth, as with Sal or Ruth,
He disports in the new-mown hay!"
And 'twas "O to breed in the infant's eye,
In the swollen joint as well,
And the facts supply, when deacons lie,
And "cart wheel" stories tell!"

"O 'tis woe in a sawed off tube to split,
And on measly 'spud' to meekly sit!
To see our spores grow weak and lean,
And the venom depart from our ptomaine!
And never a rainbow of promise to see,
In the crescent curve of the arched chordee!"

IV

"Let the staphylococcus laugh long and loud,
At the sound of our hopeless wail:
Though our head be bowed, no putrid crowd
Can such humor as our's assail!
We've snapped many a streptococcus chain,
Hushed many a bacillus' bray:
And his search will be in vain who shall search for a stain
On the record we hold today!"

"Come death before a life of shame!
Come death before dishonored name!
And never our words will our acts belie
We fail to infect for we will not try!
And neither in culture, in mucous or pus,
Has Neisser himself seen flies on us!"

—Cincinnati Lancet and Clinic.

Rules for the Prevention of Consumption.— The New York Board of Health has followed up the report of its pathologists on the contagiousness of tuberculous diseases with the

publication of a series of rules to be observed for the prevention of consumption. The first directs that sputa of suspected consumptives should be received in earthen or glass dishes containing a solution of bichloride of mercury, 1 to 1,000. The other rules are as follows:

2. Do not sleep in a room occupied by a person suspected of having consumption. The living-rooms of a consumptive patient should have as little furniture as practicable. Hangings should be completely avoided. The use of carpets, rugs, etc., ought always to be avoided.

3. Do not fail to wash thoroughly the eating utensils of a person suspected of having consumption as soon after eating as possible, using boiling water for the purpose.

4. Do not mingle the unwashed clothing of consumptive patients with similar clothing of other persons.

5. Do not fail to catch the bowel discharges of consumptive patients with diarrhœa in a vessel containing corrosive sublimate one part, water one thousand parts.

6. Do not fail to consult the family physician regarding the social relations of persons suffering from suspected consumption.

7. Do not permit mothers suspected of having consumption to nurse their offspring.

8. Household pets (animals or birds) are quite susceptible to tuberculosis; therefore do not expose them to persons affected with consumption; also, do not keep, but destoy at once, all household pets suspected of having consumption, otherwise they may give it to human beings.

9. Do not fail to thoroughly cleanse the floors, walls, and ceilings, of the living and sleeping-rooms of persons suffering from consumption, at least once in two weeks.—*Amer. Prac. and News.*

A New Tubercle Bacillus.—We read in the Gazette hebd. de Méd et de Chir., that Dr. J. Courmont claims to have found a new tubercle bacillus in a pleural lesion of an ox affected with tuberculosis. Cultures of this new bacillus, which are quite different in appearance from the tubercle bacillus of Koch, produced tuberculosis in from fifteen to twenty-five days when injected into rabbits. In the rabbits thus infected he found large quantities of the new bacillus, but Koch's tubercle bacillus was absent in every case. The new microbe was also found in the blood of the animals infected. It thrives well at a temperature of 97° F.

Dangers of Suspension Treatment.—Another case of death has occurred from the suspension treatment of locomotor ataxy—this time in Italy. The case, which occurred in the clinic of Professor E. Galvagni, of Modena, is fully reported by Dr. Carlo Borsari in the Riforma Medica of July 18 and 19.

Therapeutic Brevities.

Cardiac Tonics.—M. Bucquoy, who was delegated to introduce this subject, said that the therapeutics of diseases of the heart was directed not so much to combat the lesions of the organ as to raise its tone when it is wanting. For many years digitalis was regarded as the agent *par excellence* prescribed with that intent, and even at present its wonderful effects in certain cases justified the opinion. However, in the last few years other agents have been introduced, such as convallaria majalis, adonis vernalis, strophanthus, squill, etc. The greater part of these act in strengthening the ventricular systole of the heart, in regulating the pulse, and in producing a diuresis more or less abundant. Unfortunately it was not exactly known how these agents differed from each other in their action. It would be well if their action on the vasomotors were determined precisely, for they are not all vaso constrictors like digitalis. It would be necessary also to know how long the administration of each of these medicines could be pursued. Caffeine and strophanthus could be continued for a long time, while digitalis accumulates rapidly. He tried strophanthus on 200 patients, and he remarked that in mitral disease the pulse became strong and regular, while where the aortic valves were the seat of the lesion, Corrigan's pulse becomes greatly exaggerated. He considered that the drug was a precious agent, for it gave tone to the pulse and could be prescribed indefinitely. Its diuretic action was constant, and there was only one counter-indication to its administration, and that was fatty degeneration. Strophanthin is not so efficacious as strophanthus. M. Masius said he preferred digitalis, and several other members were of the same opinion.—*Med. Press and Circ.*, Aug. 14, 1889.

The Curability of Cirrhosis of the Liver.—In a lecture delivered some time ago at the University of Naples, Professor Semmola called attention again to his method of treatment of cirrhosis of the liver, which he had first proposed in 1879 at the Amsterdam Congress, although he had suggested the possibility of curing the disease ten years before that time. The method is a very simple one, and consists in the enforcement of a pure milk diet, no solid food whatever being allowed. By this diet, he claims, nutrition is sustained, while the least possible work is put upon the digestive organs, and it is upon this physiological rest that he relies for a cure of the beginning cirrhosis. It is, of course, only in the earlier stages of the disease that a cure can be expected, that is, during the stage of interstitial hepatitis, before atrophy of the organ has advanced.

In this connection, the lecturer took occasion to inveigh against too great a devotion to pathology, which tended, he thought, to promote pessimism in therapeutics. At the post-mortem table interstitial hepatitis is generally found in its atrophic stage, when the newly-formed tissue has become fibrous and contracted, and when no hope of cure can be entertained. One who has such a picture always before his mind as the interpretation of the early symptoms of the disease, is not

encouraged to treat the affection to the end of effecting a cure.

Professor Semmola reported several cases in which the symptoms pointed to an early stage of hepatic cirrhosis, and in which a cure was obtained by means of a rigid adherence to a milk diet, without solid food or drugs.—*Medical Record*, August 24, 1889.

Removal of Moles by Electricity.—If the growth is the elevated, warty mole, its removal by electricity is admirable. The brown pigment mole may also be destroyed in this way, but it is not quite as clean cut an operation. With the warty mole, I inject into it a few drops of four or six per cent. cocaine, and as soon as it is benumbed, I transfix the growth at the base, exactly on the level of the adjacent skin, the needle having previously been connected to the negative pole of a Galvanic battery. I use about eight milliamperes current, equivalent to about twenty cells of a thirty-six-cell battery, if in good condition. One could use from twelve to sixteen, or even twenty cells. The positive sponge electrode may be held by the patient in the hand, unless the current would pass through the eye, when a small sponge electrode must be pressed upon the face at some point that would avoid this objection.

Very soon after the current is completed, bubbles of gas pass out along the points of entrance and exit of the needle, and the mass becomes blanched. Hold the needle there half a minute to a minute. Transfix again at right angles, taking care to interrupt the current by taking off the sponge electrode before the needle is withdrawn, and also taking care to introduce the needle again before completing the current. If the mass is very large, or is very fibrous, transfix a half-dozen times at different points, but always on the exact level of the skin adjacent. In this way a layer of dead tissue is formed by the electrolytic action of the current, at the base of the mole, and on the level of the skin. The main mass dries down, and dries from lack of nourishment, and in five to eight days drops off, leaving a smooth, pink spot, which, in a month or so, will fade away almost entirely. The mole dries down into a dark crust before dropping off.—W.F. Hoyt, M.D., in *Columbus Med. Jour.*

Hay Fever and Menthol.—Two recent communications to the Lancet have pointed out the dangers of the continued use of cocaine in hay fever, in respect to the formation of the cocaine habit. One was by Dr. F. de Havilland Hall and the other by Mr. William Hill. The latter has had occasion to resort to the use of menthol, locally applied, for the coryza vaso-motoria in cases where the addiction to cocaine has been established, and he believes that he has found it an efficient and unobjectionable substitute. He says: "I think we possess in menthol an antiseptic remedy sufficiently resembling cocaine in its anæsthetic and astringent action, and having none of its disadvantages. A Cornish patient of mine, who has been prevented coming for a reapplication of the Galvano-cautery, which has hitherto relieved only for a season, has written to me to say that he would not be without menthol for worlds, and that he much preferred it to cocaine." Mr. Hill's method is in the use of a 10- to 20-per-cent. solution of menthol in olive oil or almond oil, to be applied to the sensitive area of the nasal mucous membrane in coarse spray or with a brush. He thinks it possible that in the asthmatic varieties of hay fever the distress may be relieved by insufflations of a strong solution in oil. The drug has been used with success in severe asthmatic attacks, not due to hay-fever complication, by means of inhalations from the surface of a 20-per-cent. solution. The action is said to be prompt in the relief of bronchial spasms, and one patient stated that the medicine produced a feeling in the head resembling that caused by the inhalation of a few drops of chloroform.—*N. Y. Med. Journal.*

Cocaine in the Treatment of Affections of the Urinary Organs.—M. Lavaux spoke of the advantages of the employment of injections of cocaine in cystitis accompanying stricture. The strength of the solution should not exceed four per cent., and a tablespoonful of this solution should be injected at the time in order to anæsthetize all the mucous membrane of the bladder. The injection should be made without the catheter. The injection of cocaine is also useful in certain forms of costalgia and vesical neuralgias, and in the spasm of the membranous portion of the urethra in stricture. It should be added that cocaine provokes a persistent desire to micturate frequently, and sometimes this becomes annoying to the patient.—*Med. Press and Circ.*, August 14, 1889.

The Treatment of Psoriasis with Applications of Hydroxylaminum Muriate.—Fabry reports (Archiv für Dermatologie und Syphilis, H. 2, 1889) his experience with the hydroxylaminum in the treatment of this disease. The twenty-four cases on which the observations were made occurred in the service of Dr. Doutrelepont, of Bonn. The external use of the drug is here referred to, as its internal use has been found to have a paralyzing effect upon the nerve centres. Even its local application needs medical supervision. The remedy was applied either in alcoholic or aqueous solution, after neutralization with calcium carbonate. The strength employed varied from 1:1000 to 1:2000. It is painted on the patches twice daily; and a cloth may be wetted with it and applied to suitable parts. Albumen may be occasionally found in the urine of patients so treated. Its advantages over chrysarobin and pyrogallic acid are cheapness, absence of staining, and the comparative infrequency of any irritating effect.

The Removal of Tattoo Marks.—In his letter to the Journal of Cutaneous and Genito-urinary Diseases, March, 1889, Brocq refers to the plan of treatment practised by Variot for the removal of tattoo marks. The method consists in freely painting the part with a strong tannin solution and then immediately pricking the skin with a bunch of needles in order that the tannin may penetrate deeply. The operated surface is then rubbed vigorously with nitrate of silver. The pricked points in

the course of a few moments become black, and the surface is then wiped off. Varying degrees of inflammation ensue, with more or less pain on motion. In about two weeks the eschar becomes spontaneously detached, beneath which is seen a red cicatrix. In due time the redness disappears.

The statement of Dupuy that the natives of the Indian Archipelago remove tattoo marks, without leaving a scar, by making tattooings with the juice of the carica papaya, is also quoted.

Treatment of Pneumonia by Application of Ice.—Dr. Fieandt, writing in Duodecim, a Finnish medical journal, states that he has now treated no less than 106 cases of pneumonia with ice, and with the best results. Though ten of the cases were of double pneumonia, only three out of the whole number succumbed, notwithstanding that the epidemic was by no means a slight one. The method adopted was to apply over the affected lung an India rubber bag containing ice, continuously for from twelve to twenty-four hours after the crisis. In addition to the local treatment the patients were given such medicines as are usually employed, that is to say, opium, ipecacuanha, digitalis, brandy, etc. The method has, we may remark, received of late some attention in this country.—*Lancet*, August 10, 1889.

Prophylactic Hair-Wash. — The following hair-wash, given in the Therapeutische Monatsheft for July, 1889, is said to keep the scalp cool and the hair dry and free from oil, also to prevent dandruff, besides being a most agreeable toilet preparation:

℞ Spirit of ether, f ℥ jss.
Tincture of benzoin, f ℥ jss to f ℥ ij.
Vanilin, ♏j.
Heliotropin, ♏iij.
Geranium oil, gtt. j.

M. Sig. For hair-wash. Keep well corked and do not expose to flame, as the mixture is highly inflammable.

Ipecachuana in Insect Bites.—Dr. Neal recommends the use of ipecacuanha in all cases of insect bites, and states that recently a patient traversed India bidding defiance to mosquito bites with the following application:

Pulv. ipecac., ℥ ss.
Sp. Vini Rect.,
Ether sulph., ℥ ss.

This is well worth knowing outside of India, and it has been stated that a tincture of insect-powder sponged on the surface is good for warding off flies; so also is oil of cedar.

"*Status Epilepticus*" *Treated by Amyl Nitrite.*—A young man was seized with an epileptic fit, which recurred several times at intervals of about fifteen minutes. During the intervals he was profoundly insensible and breathing stertorously, with occasional vomiting. As there seemed no sign of improvement after a considerable time, I administered, by inhalation, two capsules containing four grains each of amyl nitrite. There was a slight but distinct appearance of improvement at once, and the fits did not afterwards recur. After a time he recovered consciousness.—Hugh Wood in the *British Med. Journ.*, Aug. 10, 1889.

A Dental Anæsthetic.—The combination of cocaine and antipyrin in solution is said to act as a powerful local anæsthetic upon the gums, and also upon sensitive dentine. The anæsthesia is more lasting and more complete than when cocaine is used singly.

Dr. Martin, in L'Union Médicale for August 8th, suggests the following formula, which he has used with great success:

℞ Hydrochlorate of cocaine, gr. ¾.
Antipyrin, grs. vj.
Distilled water, ♏xvj.

M.

Ice in the Treatment of Burns.—Dr. J. G. Carpenter, in the American Pract. and News for August 17th, highly recommends the treatment of burns with ice, or ice-cold applications. Two cases are cited where the treatment was attended by most speedy and marked success. The applications should be renewed frequently.

Medical Progress.

ESMARCH ON CANCER.—In a paper on the etiology and diagnosis of malignant growths, especially those of the tongue and lip, read at the last Congress of the German Surgical Society, Professor von Esmarch first pointed out that, although extensive and elaborate statistical records of cases of cancer, treated by Billroth and others, have of late years been published, no addition of importance has been made to our knowledge of the etiology of malignant disease. These statistics throw no satisfactory light on the question of the origin of cancer, its hereditary transmission, and its connection with other diseases; and also with regard to the diagnosis, are of doubtful value. Our views with regard to the nature of tumors, have been changed during the long periods over which such copious statistical returns necessarily extend, and our diagnostic methods have not yet been improved to such a degree as to guard against error. Reference is made to a case in which, after excision of supposed cancer of the lip, there was a speedy return of the tumor in a scar. An antisyphilitic treatment was then prescribed, and after it had been continued for a month, the swelling of the lip had disappeared and the patient was cured. Another case is mentioned, in which, after extirpation of the penis and both testes for what had been diagnosed as malignant disease, the persistent ulceration was finally cured by means of the specific treatment of syphilis. The growths most frequently mistaken for malignant tumors are, gummata, or to use a more suitable term, syphilomata. These often resemble in their structure true sarcomatous and fibrous tumors. It is stated that many of these latter forms of tumor, especially fibroma

of muscle, spindle-celled sarcoma, keloid of scar tissue, and malignant lymphoma, ought to be regarded as syphilomata. Antisyphilitic treatment, Von Esmarch asserts, is especially beneficial in cases of sarcoma of muscle, 50 per cent. of the cases observed in the Kiel clinique during the past year, having been thus cured. Tubercular lesions, especially ulceration of the lips, larynx, and breast, and also actinomycotic tumors, are, it is stated, often mistaken for cancer. Twenty years ago Von Esmarch removed from the tip of a man's tongue an ulcerated growth, which, after an examination by an eminent pathologist, was declared to be adenoma. Two years ago an apparently analagous case came under observation. The growth was diagnosed as adenoma, and excised, but on microscopical examination proved to be tuberculous. In order to avoid errors of this kind, and to save the patient from an operation likely to do harm rather than good, Von Esmarch insists on the propriety of submitting any doubtful growth to careful microscopical examination before resorting to excision. He strongly advocates the removal of small pieces of the growth for such examination, and if the diagnosis still remains uncertain, after repeated introduction of a suitable instrument, he would make a free incision into the growth, and, if he thought it necessary, would not hesitate, for exploratory or diagnostic purposes, to perform such serious operations as laryngo-fissure, cystotomy, and laparotomy. If the growth be found, on very careful microscopical examination to be composed of granulation tissue, then an active antisyphilitic treatment, consisting in the administration of mercurials and iodide of potassium, should be carried out. Such treatment should be steadily persevered in for some time, notwithstanding an apparent failure at first, or even if it seem to be doing harm, as complete success is often suddenly attained after a long period. The malignancy of a tumor, Von Esmarch argues, is by no means associated with its structure. Of two growths of like morphological character, in one malignancy will be slightly marked or quite absent, whilst in the other it will exist in an extreme degree. Statistics teach very little concerning the etiology of cancer; they simply show that certain irritants of a chemical or physical nature —as, for instance, soot, tobacco, paraffin—may act as exciting causes of the disease, but they do not explain why such irritation acts in this way in one subject only out of a thousand. The "germ inclusion" hypothesis of Cohnheim, the views of Thiersch and Waldeyer, and the idea of an infective origin and the action of micro-organisms, must at the present time, it is stated, yield in importance to Virchow's theory of predisposition, and the weakened resistance of the tissues of the body to the development of cancer. This predisposition, it is pointed out, is the result of an hereditary transmission, and the idea is suggested that syphilis in some remote ancestor may, after it has left some few generations quite free, excite in the more recent descendants a tendency in the tissues to proliferate, and so set up sarcoma or fibroma in the connective tissue, and carcinoma in the skin. With regard to treatment, cancer is held to be curable if freely and thoroughly removed by the knife in an early stage.—*London Med. Recorder*, July 20, 1889.

THE DOSES OF SOME OF THE NEW AND RARE REMEDIES.—A table of doses of new and of rare remedies has recently been published in Merck's Bulletin which we here copy. For the material of the table the compiler acknowledges his principal indebtedness as due to Fischer's Neuere Arzneimittel, and to Aurep and Voromikin's Russian Medical Agenda. The compiler has for convenience adopted the ratio of 1 to 15 in converting grams into grains; the more accurate proportion is given as 1 to 15.432.

Remedy.	Maximum Adult Dose.	
	SINGLE.	DAILY.
	Grams.	=about Grains.	Grams.	=about Grains.
Acid, Cubebic	1	15	5	75
Hydrobromic, dil. (10 p. c.)	40 *drops.*		100 *drops.*	
Iodic	0.3	4½	1.2	18
Per-osmic	0.015	¼	0.05	¾
Sclerotic	0.06	1	0.25	4
Valerianic	10 *drops.*		40 *drops.*	
Adonidin	0.006	1-10	0.03	½
Agaricin	0.015	¼	0.05	¾
Allyl Tri-bromide	8 *drops.*		—	—
Aloin	0.3	4½	0.6	9
Amylene Hydrate	4	60	8	120
Anemonin	0 03	½	0.1	1½
Antifebrin	1	15	3	45
Apiol, crystallized (solid Parsley camphor)	1	15	4	60
Apocodeine	0.03	½	0.08	1¼
Apomorphine Hydrochlor	0.01	⅙	0.05	¾
Arbutin	1	15	4	60
Arsenic Bromide	0.01	⅙	—	—
Iodide	0.01	⅙	—	—
Asparagin	0.1	1½	0.3	4½
Aspidospermine Hydrochlorate	0.003	1-20	0.006	1-10
Baptistin	0.03	½	0.1	1½
Berberine Sulphate	3	45	10	150
Benzine (Benzol)	1	15	6	90
Berberine Hydrochlorate	0.06	1	0.25	4
Boldo-glucin	4	60	12	180
Butyl-chloral Hydrate	1	15	4	60
Cannabin Tannate	1	15	2	30
Cannabinon	0.1	1½	0.3	4½
Carbon Bi-sulphide	10 *drops.*		40 *drops.*	
Tri-chloride	0.5	7½	2	30
Cerium Oxalate	0.3	4½	1	15
Chrysarobin	0.005	1-12	0.015	¼
Cocaine Hydrochlorate	0.15	2½	0.5	7½
Colocynthin	0.4	6	0.8	12
Coniine Hydrobromate	0.005	1-12	0.03	½
Convallamarin	0.06	1	0.3	4½
Cotoin	0.8	12½	0.5	7½
Daturine	0.001	1-64	0.003	1-20
Duboisine	0.001	1-64	0.002	1-30
Erythrophlœine Hydrochlorate	0.01	⅙	0.03	½
Ethyl Bromide	20 *drops.*		—	—
Iodide	20 *drops.*		—	—
Ethyl oxy-caffeine	0.65	10	2	30
Euonymin—(the pure Resinoid)	0.5	7½	1	15
Fluid Extract: Boldo	1	15	3	45
Cabbage-tree bark (from *Andira inermis*)	2	30	6	90
Cascara Amarga (Honduras-bark)	4	60	10	150
Cascara Sagrada (Chittembark)	4	60	10	150
Damiana (*Turnera microphylla*)	5	75	20	300
Golden Seal (Hydrastis)	2.5	38	10	150
Grindelia robusta	3	45	20	300
Kava-Kava (*Piper methysticum*)	0.65	10	2	30
Lilly of the Valley (*Convallaria majalis*)	0.5	7½	1.5	23
Piscidia (Jamaica Dogwood)	5	75	15	225
Witch-hazel (Hamamelis)	10	150	—	—
Fuchsin	0.25	4	0.5	7½
Geiseminine Hydrochlorate	0.005	1-12	0.015	¼
Guaiacol	0.1	1½	0.5	7½
Hashish	0.1	1½	0.3	4½
Helenin (solid Elecampanecamphor)	0.3	4½	1	15
Helleborein	0.03	½	0.12	2
Hematropine Hydrobromate; or, Sulphate	0.03	½	0.25	4

Remedy.	Maximum Adult Dose.			
	Single.		Daily.	
	Grams.	—about Grains.	Grams.	—about Grains.
Hydroquinone (Hydrochinone)	0.8	12	1.5	23
Hyoscine Hydrochlorate	0.001	1–64	0.003	1–20
Hyoscyamine Sulphate	0.001	1–64	0.003	1–20
Hypnone (Aceto-phenone)	0.5	7½	1.5	23
Ichthyol	1	15	4	60
Iodine Tri-chloride	0.012	1–5	0.08	1¼
Iodol	0.2	3	1	15
Iridin	0.2	3	0.5	7½
Kairin	1	15	4	60
Menthol	1	15	5	75
Mercur-Thymol Acetate	0.01	⅙	0.12	2
Mercury Bichloride, peptonized	0.03	½	0.1	1½
Cyanide	0.03	½	0.1	1½
Form-amidated	0.03	½	0.1	1½
Phenate (Carbolate)	0.03	½	0.1	1½
Salicylate	0.03	½	0.1	1½
Tannate	0.1	1½	0.3	4½
Methylal	4	60	8	120
Naphthalin	1	15	4	60
Naphthol, Beta	1	15	4	60
Nickel Bromide	0.5	7½	1.5	23
Nitro-glycerin	0.001	1–64	0.005	1–12
Par-aldehyd	4	60	——	——
Parthenicin	0.2	3	1	15
Pelletierine Sulphate; or Tannate	0.5	7½	5	75
Pereirine Hydrochlorate	0.5	7½	2	30
Phenacetin (Para-acet-phenetidin	1	15	2	30
Picrotoxin	0.006	1–10	0.02	⅓
Piperine	0.6	9	1.2	18
Podophyllotoxin	0.02	⅓	0.06	1
Potassium Osmate	0.015	¼	0.5	¾
Propylamin, *so-called*, see Tri-methyl-amin	....	....	....	....
Pyridin	——	——	25 *drops*.	
Quinoline (Chinoline) Tartrate	2	30	6	90
Resorcin	3	45	10	150
Salicine	2	30	10	150
Salol	2	30	10	150
Silver Cyanide	0.005	1–12	0.02	⅓
Iodide	0.02	⅓	0.06	1
Solanin	0.1	1½	0 5	7½
Sparteine Sulphate	0.03	½	0.1	1½
Strophanthin	0.0002	1–333	0.0004	1–166
Sulphonal	4	60	8	120
Terpin Hydrate	0.3	4½	1	15
Terpinol	0.3	4½	1	15
Thalline Sulphate	0.5	7½	1.5	23
Tartrate	0.5	7½	1.5	23
Tincture Strophanthus	1.5	23	5	75
Tri-methyl-amin (erroneously called "Propylamin," 10 p. c. solution)	3	45	10	150
Urethane	5	75	——	——
Xylen (Xyiol)	2	30	——	——

Circular, September, 1889.

THE DIETETIC TREATMENT OF CHRONIC BRIGHT'S DISEASE.—About seven years have elapsed since Senator's noteworthy paper, "On the Hygienic Treatment of Albuminuria," was reviewed in these columns. Perhaps the most striking paragraphs in the original article published in the Berliner klin. Wochenschr., for 1882, were these: "At any rate, one will do well to forbid entirely the use of eggs in a case of persistent albuminuria;" again, "as to other albuminous articles of food, especially meat, if it be desired to remove an albuminuria, they are to be rigidly withheld." Equally emphatic was the language of Semmola, of Naples, who may be regarded as the leading authority on the same subject in Italy. Founded, as these statements were supposed to be, and actually were, upon experiment and experience, they made a deep impression, and have influenced the dietetic treatment of Bright's disease more or less thoroughout the world.

The observations upon which these conclusions were based were such as the following: The experiments of Stokvis and J. C. Lehman, showing that if egg albumen is introduced into the blood, uot only does it appear in the urine, but it is also accompanied by serum albumen; the earlier observation of Barreswil, that twenty-four hours after ingesting ten eggs, albumen appeared in his urine, and a similar experience by Hammond; also experiments by Stokvis and others on the feeding of animals; Senator's own observations on the urine of apparently healthy men, in which albumen made its appearance twenty-four hours after liberal ingestion of meat; and, finally, Semmola's experiments on animals with egg albumen injected under the skin, followed by albumen excretion over and above the amount injected, accompanied also by a decrease in the twenty-four hours' urea, and by anasarca and dropsy of the serous cavities—in a word, according to Semmola himself, the animals upon which he experimented became true examples of Bright's disease.

This experience, and the conclusions therefrom, have been recently offset by some observations of Julius Schreiber, published in the Berliner klin. Wochenschr., of June 10. First, the results quoted of the subcutaneous injections of egg albumen are met with the statement that the same reasoning would exclude milk from the diet suited to Bright's disease, because when injected directly into the circulation it promptly appears in the urine. Second, Schreiber made a number of experiments consisting in the ingestion of large numbers of raw eggs, forty-two in three days, in addition to other albuminous food, and the urine remained without a trace of albumen. Third, to eight subjects of Bright's disease he admiuistered from six to ten raw and cooked eggs daily, with similar negative results; in fact, in certain instances, there was an actual diminution in the albumen, so that he drew the conclusion that the ingestion by the stomach of liberal amounts of egg albumen was not followed by an excretion of albumen in healthy persons, nor is the albumen in the albuminuric increased. Nay, more, it would seem that the latter were more frequently favorably influenced thereby. Finally, a series of experimeuts in which the effect of a mixed diet, a meat diet and a milk diet, on the albumen of certain chronic albuminuric cases were compared, led to the interference that no definite conclusion dare be drawn as to the effect of any of these diets, the use of milk being sometimes attended by a decided increase, and at others by a slight diminution in the albumen.

In strong contrast are these results with the experience of both Senator and Seimmola, and especially the latter, who has seen the albumen disappear from the urine entirely, a few days after placing the patient on a milk diet. As the result of all of which, Shreiber concludes that an albuminous diet in any shape has not the disadvantages in Bright's disease so generally claimed for it; that patients under a milk diet eliminate no more albumen than under a diet of albumiuous substauces, and that they do much better with an admixture of both, gaining in weight and otherwise im-

proving; that no exclusive diet should be long persisted in with a view to making up or substituting any loss of albumen by the urine; that a free supply of vegetables should be permitted, while strong spices and alcohol should be prohibited.

At first thought, these opposite results, which are doubtless correctly reported, are confusing and discouraging; but they, nevertheless, have a useful bearing upon the dietetic treatment of Bright's disease. In fact, they are no more at variance than those of remedies which are now allowed an acknowledged position in the treatment of other diseases. Here, as in other instances, time and clinical observation must come to our assistance and determine true value. That the use of a pure milk diet in albuminuria is at times attended by a diminution of albumen, we have proved in our own experience over and over again. That, on the other hand, such a diet is the best thing in all cases of albuminuria, we are equally assured is not the case, while it is as true that there are instances of Bright's disease in which a milk diet, whatever be its effect upon the albumen, in attended by a palliation of some of its most annoying symptoms.

In like manner experience has taught us that there are cases in which the admixture of meat with the other food is not only harmless but necessary to the well-being of a patient, while in others its use is attended by an aggravation of some of the most annoying and dangerous symptoms; all this quite independent of the amount of albumen in the urine, the cases with least albumen being often those which are most unpleasantly affected by a meat diet and most benefited by milk.

The whole explanation, in our opinion, lies in the fact—not overlooked by Schreiber, but still not allowed sufficient weight—that the proportion of albumen does not go *pari passu* with the retention of poisonous substances in the blood; in other words, the quantity of albumen is not *always* an index of the severity of the disease. It would seem to be the case that in certain forms of Bright's disease, notably chronic diffuse nephritis, there is a resistance to the onward movement of the blood through the kidneys which results in albuminuria, while the power of the renal cells to eliminate urea and allied products is not proportionately arrested. On the other hand, there are cases of chronic interstitial nephritis where from increased cardiac propulsion or other cause, the blood is driven through the kidneys, leaving behind but a small amount of its albumen, while the cells, or what is left of them, are unable to do their work, and the excrementitious substances accumulate in the blood until the uræmic explosion occurs. It is in these last cases that an albuminous diet is harmful, and milk, farinaceous substances, and vegetables, and in some cases milk only, not only relieve symptoms but also prolong the life of the patient. In the first category, on the other hand, a mixed diet, including meat and eggs, is not only harmless but necessary to avert the anæmia which sooner or later succeeds. Even here, however, it is good practice, and we believe it is sustained by the results, to temper the amount of proteid food, and not to administer it *ad libitum*.

From the standpoint of our personal experience, the results of Senator on the one hand, and of Schreiber on the other, are quite compatible, and both have their proper application in the dietetic treatment of Bright's disease.—*Medical News.*

Antiseptics in Disease.—Dr. T. Lauder Brunton, in the Croonian Lecture delivered last month at the Royal College of Physicians, London, stated *inter alia* that "The indications for the treatment of disease depending on microbes are: first, to remove as far as possible both the microbes and the poisons they have formed; secondly, to neutralize the injurious effects of any poisons already absorbed into the blood; thirdly, to prevent the growth of microbes and the formation of poisons. These principles have been empirically carried out in the treatment of diarrhœa by castor-oil as a purgative, followed by the administration of carminatives, such as cinnamon and cloves, which are antiseptic. In applying antiseptics internally, we are obliged to consider the effects they produce upon the organism. A small dose is needed of *creasote* or *carbolic acid* to arrest fermentation in the stomach, because it can be directly applied to the microbes; but in disinfecting the intestine, either the remedy must be insoluble enough to pass through the stomach, or it must be tolerated in large quantities. *Naphthalin* corresponds to the first of these remedies, and so to some extent does *salol*, which, after passing the stomach, splits into salicylic and carbolic acids. Still more useful is *betol*, which in a similar way splits into salicylic acid and beta naphthol. *Resorcin*, *thymol*, and *benzoate of soda* have somewhat similar properties. Amongst the aromatic compounds, Pellicani has found that substances containing a diphenyl nucleus are at the same time least poisonous and most powerfully antiseptic. The poisonous effects of phenol are very much reduced by combination with sulphuric acid, and phenyl-sulphuric or *sulphocarbolic acid* forms salts with bases, which, though slightly less antiseptic, are very much less poisonous than carbolic acid. There is another group of compounds in which the atom of sulphur, instead of being united by means of oxygen to the aromatic nucleus, is attached directly to one of the carbon atoms in that nucleus. Such a one is ortho-phenol sulphonic acid or *aseptol*, which has been introduced both as a local and an intestinal disinfectant, and is administered in the same dose as salicylic acid.

Another method of destroying the activity of the bacteria is to starve them out by substituting a new diet for that to which they are accustomed. For this reason Vaughan recommended that in infantile diarrhœa beef-tea, rice water, or pure water, should be given instead of milk for some days until the bacteria have died out. The same principle may be considered to be applied in the treatment of typhoid fever. The same requirements for antiseptics apply to the local treatment of other cavities and raw surfaces, and in consequence of the poisonous action of carbolic acid recourse has been had to mercurial salts. At the same time, a number of organic substances have been tried with some success. Iodine in combination as *iodoform*, when sprinkled on a raw surface, prevents the movements of leucocytes, keeps the surface dry, prevents suppura-

tion, and encourages granulation; whilst at the same time its local anæsthetic action lessens pain. It has also a special influence on tubercle bacilli, and has been used in local tubercular processes, particularly of the larynx. Iodoform, however, is poisonous; it produces running at the nose and gastric disturbance like iodine, and, as a member of the alcoholic series, it causes nervous symptoms like headache, loss of memory, variable temper, sleeplessness, and sometimes mania alternating with coma. Fatty degeneration of the heart and other organs is usually found after death. In consequence of this poisonous action, another substance, *iodol*, has been introduced, in which four carbon atoms with one of nitrogen form a closed ring, four atoms of iodine being attached. This has the advantage of being free from smell and less poisonous, though it is rather more irritant locally. Another compound of iodine with a member of the aromatic series, paraphenol-sulphonic acid, called *sozoiodol*, has been recommended, forming salts with potassium or sodium, which are neither poisonous nor ill smelling, and which may be used either in solution, ointment, or powder. Another combination has been obtained by uniting chlorine with phenol, as *trichlorphenol*, the salts of which, with calcium and magnesium, are powerful disinfectants, and have no irritating effects on the tissues.

For the especial experiences and advantages of these various remedies, see the indices of the Quarterly Therapeutic Review. — *Quarterly Therapeutic Review*, July, '89.

PHOSPHORUS IN THE TREATMENT OF RICKETS.—The use of phosphorus in rickets, so much vaunted by Kassowitz and others a couple of years ago, has not, we believe, found much favor in this country. A very extensive trial of the remedy has recently been concluded by Dr. L. B. Mandelstam, of Kazan, who publishes the results in "Vratch," Nos. 5, 7, 9, 10, and 11, 1889. These experiments extended over a period of nearly three years, and the number of patients upon whom the phosphorus was tried was 450, their ages running from three months to four years. Of this number, however, 234 were excluded from the statistics, either because they did not take the phosphorus long enough, or in the proper way, or because the disease in them was not sufficiently pronounced to make the experiment a satisfactory one.

Of the remaining 216 children, 120 were cured, 43 were markedly benefitted, in 30 no improvement was noted, and in the remaining 23 the treatment was discontinued on account of some intercurrent disease. The remedy was given dissolved in cod-liver oil, in the proportion of 1 part to 10,000 of oil, of which a teaspoonful was given once or twice a day. When it was not deemed advisable to give cod-liver oil, the remedy was administered, after the formula of Kassowitz, in a mixture composed of $\frac{1}{100}$ part of phosphorus, 15 parts each of gum arabic and sugar, 30 parts of almond oil, and 40 parts of distilled water. Dose, a teaspoonful once or twice a day. No other remedy was employed, except when diarrhœa was present, and then an attempt was made to cure this before giving the phosphorus.

The following are the conclusions which the author feels himself justified in formulating as a result of these experiments:

1. Clinical observation justifies fully the employment of phosphorus in rickets.

2. Phosphorus acts better, more quickly, and with greater certainty, than any other remedies.

3. This drug, when given in small doses, even for long periods of time, is well borne by children, and causes in them no unpleasant effects.

4. Phosphorus is especially efficacious in controlling the nervous manifestations of rickets.

5. Periodical measurements and weighing of the children, as well as observation of the osseous structures, show that the disease is actually arrested in its course, and cured, in the great majority of cases, under the influence of phosphorus.

Another trial of the same remedy was made by Dr. Shabanova, whose report is presented in "Vratch," Nos. 16, 17, 18, and 19, 1889. She treated 105 patients, and obtained perfectly satisfactory results in 77. In 22 an improvement was noted, and in 6 cases there was an aggravation of the disease while the treatment was being continued. The first effects of the remedy were seen in an improvement in the nervous symptoms, and later, in favorable cases, a change for the better was seen in the general health, and in the condition of the bones and muscles.—*Med. Record.*

A CASE OF GUNSHOT WOUND OF THE HEAD; BULLET LOCATED BY MEANS OF THE TELEPHONIC PROBE. OPERATION; RECOVERY.—On December 11, 1888, I was requested by Dr. Burger, of this city, to visit with him M. H., a five-year old boy, who, while playing with a younger brother, suffered a gunshot wound of the face from the accidental discharge of a thirty-two calibre revolver. Dr. Burger saw him immediately after the accident, and simply dressed the wound with a carbolized-water dressing, pending efforts to locate and remove the missile.

Upon my arrival, I found the little patient lying upon the lounge, with the region about the left eye swollen, and suffering considerable pain. The face and eye were burned with powder, showing that the pistol had been fired at close range. A bullet wound with blackened edges was observed upon the left side of the face, just below and about on a line with the infraorbital foramen. After thorough disinfection of the surrounding parts, the wound was probed, but the only information obtained by this was the fact that the anterior wall of the antrum of Highmore had been perforated by the ball. The probe passed directly backward and was arrested at the depth of an inch, but whether by bone or the bullet could not be determined. The telephonic probe was then brought into requisition in the following simple manner, as suggested by Dr. Girdner, of New York: An ordinary metallic sound-gauge was attached to about two feet of ordinary insulated copper wire, and the other extremity of this latter was attached to one of the binding posts of a telephone (receiver); from the other binding post of this instrument a similar piece of wire was attached to the eye of a silver pocket-case probe. The sound-gauge was held firmly pressed against the surface of the cheek of the child, and, with the telephone ap-

plied to my own ear, I passed the probe again down through the wound, and heard the characteristic rasping, clicking sound in the telephone, which announced the contact of the probe with some metallic substance in the tissues. Following the course of the probe, the ball was extracted without difficulty from the spheno-maxillary fossa by means of a Péan forceps. The antrum was then cleared of blood clot, and further search revealed the bony fragments resulting from the crushing of the anterior and posterior walls of the antrum, which were removed. The ball had passed directly through the antrum, and lodged in the spheno-maxillary fossa. The fragments of bone representing the comparatively thick anterior wall of the antrum, as well as those resulting from the crushing backward of the thin posterior wall, were easily identified upon removal. The bullet itself bore upon its further extremity a deep indentation where it had impinged upon the sharp ridge upon that portion of the greater wing of the sphenoid bone which separates the zygomatic fossa from the spheno-maxillary fossa.—GEORGE R. FOWLER, M. D., in *N. Y. Med. Jnl.*, Aug. 24, '89.

A NEW OPERATION FOR LACERATED PERINEUM.—A new operation has been proposed by Mr. Alexander Duke, for the repair of lacerated perineum, which seems to possess some advantages, in certain cases at least, over those at present in vogue. The procedure, which is described in the Dublin Medical Press of May 9, 1889, is apparently quite simple, and, if it proves to be as efficacious as Mr. Duke believes it will, ought to take rank among the recognized operations for the relief of this condition.

The method is, in brief, as follows: The patient is placed either in the lithotomy or Sim's position, the left index-finger being introduced almost its entire length into the rectum; a long, straight, double-edged bistoury is made to pierce the tissues in front of the anus at right angles to the vulva, and, guided by the finger in the rectum, is made to penetrate the septum for 2½ inches upward, the incision being enlarged laterally to 2 inches at least, as the knife is withdrawn. On the two points of incision being pressed together from side to side, a lozenge-shaped opening appears, and when all the sutures required have been introduced and are properly adjusted and approximated, the two cut surfaces are brought into direct apposition. The sutures are introduced by a strong cycle-shaped needle with eye in the point, mounted on a handle, strong silver wire being the suture preferred. The needle is introduced at the centre of the skin incision below, and, guided by the finger in the rectum, is made to travel over the cut surface to the full extent above, describing the arc of a circle, and, on the point of the needle appearing directly opposite, it is threaded with the suture, and drawn through. When all the necessary sutures have been introduced and approximated, a finger of each hand passed into the rectum and vagina will at once recognize the gain in thickness of the septum, the external tissue being pushed fully an inch forward from the anus, and forming a thick and solid perineal body. The incision being a deep one, on union taking place between the raw surfaces, a considerable depth of support must be afforded where a pessary is required, or where there is much tendency to prolapse of the uterus or vaginal walls.

Mr. Duke's experience of the operation, although up to the present limited, has satisfied him, he says, with the results; and there being no loss of tissue whatever, should the operation fail, it cannot add any difficulty to a subsequent one. The following are the advantages which he claims for the operation:

1. The simplest of performance as yet proposed. No danger of hæmorrhage, the surfaces being brought together at once, and the wound is dry and clean.

2. No danger of sepsis, as the incision is not open for the admission of any discharge from either vagina or rectum during the healing process.

3. No loss of tissue, and consequently no harm done should the operation fail.—*Med. Record.*

NEW REMEDIES IN DISORDERS OF THE LIVER.—In one of his Croonian lectures, Dr. Lauder Brunton remarked: An extended knowledge of pathology is not the only gain we may hope for from a thorough investigation of the action of drugs upon the liver; we may reasonably expect great additions to our power of treating its functional disorders or even organic diseases. I have already mentioned the peculiar effect of ammonium salts upon the glycogenic function. Dr. Stewart's introduction of chloride of ammonium in hepatic abscess is a most important aid in the treatment of that disease. The biliary function appears to be modified in a remarkable way by many substances of the aromatic series which greatly increase the bile. It is a very remarkable thing that a great number of ptomaines belong to the class of compound ammonias or amines, and the remarkable action of toluylene-diamine appeared to me to indicate the necessity for ascertaining if possible what effect would be produced on the liver by bodies of the aromatic series, free from nitrogen, as compard with the effect of similar bodies combined with ammonia. At my suggestion Dr. Collins made a number of experiments with toluene and toluylene-diamine in my laboratory, and found that both these substances greatly increased the flow of bile. Not feeling quite certain what effect toluylene-diamine and allied bodies might have upon patients, I felt a little chary of using them until I should obtain fuller knowledge of their mode of action. In order to be ready, however, to use them as soon as I had acquired sufficient knowledge, I had prepared some tablets and capsules containing toluylene-diamine. A gentleman to whom Dr. Collins had mentioned the existence and probable use of the tabloids, tried them upon his patients with good success, as he informs me.

Most of the vegetable hepatic stimulants, iridin, euonymin, and aloes, belong to the aromatic series, although we do not know their chemical structure. Much benefit is frequently obtained by their use in so-called "biliousness," and we may reasonably expect that a full knowledge of the mode of action and chemical structure of the vegetable cholagogues will enable us, not only to apply them more judiciously, but to modify their structure, and, consequent-

ly, their action in various directions, to suit our wants. It is almost certain, also, that we shall obtain a very large series of new bodies which may act upon the liver, either as stimulants or as depressants, increasing or diminishing the formation of bile, and affecting the other functions of the organ, which I have already mentioned. The frequency with which functional hepatic disorder occurs, and the great discomfort which it occasions, not only to the sufferer, but to his friends, and even to the community at large, renders it most desirable that efficient modes of treatment should be discovered.—*Chem. and Drug.*, Aug. 3, '89.

MEDICAL TREATMENT OF THE INTESTINES. In concluding an article on the subject of intestinal obstruction (London Medical Press of July 24th), Prof. H. Nothnagel says:

"I may briefly state in one sentence all the treatment I can recommend as an hospital consultant: Absolute abstinence from food; induce the peristaltic action from below; still it from above; and, above all, avoid purgative medicines. Further, I know of nothing to add for the guidance of others.

"As regards other methods of treatment, very little can be said, but there are one or two forms of recent origin which I cannot pass without a remark. Washing out the stomach was introduced by Kussmaul as a remedy, but past experience of this form of treatment has nothing particular to commend itself, and has been of very little use. One advantage in using it is, that it is a harmless application, and there is not any danger attending its use. The clyster, I can always recommend as a most effectual remedy in all forms of fæcal accumulations, but it is not suitable for fæcal vomiting where there are inflammatory conditions. The object of a large clyster is to break up large fæcal masses, but this is to be avoided where there is a tender bowel. Electricity is another remedy which has come into recent favor, and is not without merit. When using this agent it is recommended that both poles be placed over the tender or painful part of the bowel, or one pole introduced into the bowel. The successful cases from this treatment are so few that no opinion can be vouchsafed. There are other drugs, like belladonna, nicotin, and others that might be named, but there is one regularly prescribed drug that might be noticed. There was a time when every case of stoppage of the bowel must be drugged with mercury, but the greater number of the observers of this treatment have spoken very adversely of it. No doubt individual cases have arisen where success may be attributed to the drug, but these are very few, and leave us in grave doubt whether it should be used at all. If the tradition of this drug tempts you to use it in any form of vomiting, I beg to consign it to your charge with care, and trust that you will carefully use your own judgment in applying the drug where the least danger exists. In concluding my observations on the medical treatment of the bowel, I feel it my duty to say that the most severe cases that we meet in our daily practice, are frequently beyond the reach of our medicines, when arising from locking of the bowel, and properly belong to the region of operative surgery for their relief."

CHAULMOOGRA OIL IN LEPROSY.—Dr. F. J. Mouat, F. R. C. S., in London Lancet says:

It is with considerable reluctance that I venture to submit, for the consideration of the profession in India, a few remarks upon the Chaulmoogra, as the opportunities which I have hitherto had of employing it are too few and restricted to enable me to recommend it with the confidence that I could wish. Its success was, however, so remarkable and indisputable in one well-marked case of the worst kind of leprosy, that I venture to hope that an extended application of it to that most loathsome and intractable of diseases, may prove so successful as to secure the general introduction of the remedy.

It appears first to have been described by Roxburgh, in the "Flora of India," under the name of Chaulmoogra odorata. The following is the account of it given by that excellent and accurate observer: "Chaulmoogra and Petakura are the names of this tree, and of the drug, hereafter mentioned, which it furnishes. It is indigenous in the Sylhet district, and grows to a large size, equalling the largest mango trees, and when full grown may be compared to the great maple or sycamore—Acer pseudo-platanus. It blossoms in April and May, and the seed ripens about the close of the year; when the fruit is gathered, the seed is carefully taken out, dried and sold to the native dealers in drugs at about five rupees the maund of eighty-four pounds. The seeds are employed by the natives in the cure of cutaneous diseases. When freed from the integuments, they are beaten up with clarified butter into a soft mass, and in this state applied thrice a day to the parts affected."

The seed yields by expression a bland fixed oil, with a peculiar and slightly unpleasant smell and taste, with the faintest possible after-flavor of the bitter almond. The oil procured from the bazaars is invariably impure, but I have not ascertained with what other matters it is adulterated. It appears to have been long known to, and prized by, the natives in the treatment of leprosy, and few of the fakirs travelling about the country are unacquainted with its properties. I was first informed of its value by Mr. Jones, the head master of the Hindoo College, a gentleman of eminent acquirements, who brought it to the notice of other practitioners in this city, and at whose recommendation it was tried in the Leper Asylum with a favorable result.

GUAFINE, A NEW ANTIPYRETIC.—Dr. L. Bertrand has recently reported in the Bolletino Farmaceutico for July, 1889, the results of his experiments with guafine:

Guafine is a resin, which Bertrand succeeded in extracting from the leaves of the *psidium pyriferum*, a tree belonging to the myrtaceæ, and indigenous to the East Indies and South America. The leaves contain a considerable quantity of tannin and oxalate of lime, and only two per cent. of the resin guafine. The results of numerous experiments proved that guafine was of considerable value in intermittent fevers. An infusion of the leaves or bark of the psidium is said to be a digestive.

The Medical Age.

Vol. VII. DETROIT, SEPT. 25, 1889. No. 18.

Original Articles.

SOLUBLE POISONS FABRICATED BY THE MICROBES.

A LECTURE DELIVERED BEFORE THE ACADEMY OF MEDICINE, BY PROFESSOR CHARLES BOUCHARD, PARIS, FRANCE.

As we can cause the virulence of microbes to vary, it is interesting for you to know in what this virulence consists. If it be the result of complex properties, it is well to study, from a utilitarian point of view, what, among the functions which render the microbes noxious, are those which we can influence.

The pathogenic microbes may do harm by a mechanical or traumatic action exercised on the cells in the recesses of the tissue. Against this action, unfortunately, therapeutics are of no avail. There is reason to believe that there is a vital competition between the microbes and the cells of our economy, and it is possible, although not demonstrable, that this may be to the disadvantage of the latter, but I do not think it capable of determining appreciable pathological phenomena.

I have examined the hypothesis according to which the pathogenic microbes act by secreting poisons, and in this study I have considered first the putrid poisonings and infections.

For a long time, pathological physiologists considered as a type of auto-intoxications by putrid infection, the general symptoms which manifest themselves in individuals. I would impress that the type of this poisoning is auto-intoxication by putridity of the intestinal contents. Here the infection is constant in every one, and on all occasions; the agents of putrefaction found in the intestinal cavity give rise to toxic products which the intestine absorbs, and poisoning thereby, in various degrees of intensity, is extremely frequent, manifesting itself in diseases that the physician often misunderstands, as they range from simple indigestion and acute gastric catarrh to the most grave septicæmia.

That this auto-intoxication is more frequent, is because the organism is equipped for self-preservation; the liver arrests, destroys, or transforms a part of the poisons absorbed by the intestine; the blood burns a part; and the kidney eliminates the surplus. But when the amount is excessive, the phenomena of poisoning appear, constituting primary morbid states, or conditions that are secondary to other morbid states. In poisoning by spoiled meat, the morbid accidents are rarely produced by toxics pre-existing, but those that continue to be formed in the digestive passages by the breeding of microbes introduced in this meat. It is still a putrid infection which produces the putrid poisoning. The proof is that the morbid accidents are tardy, being preceded by a period of incubation lasting from 18 to 36 hours. In indigestion, the arrest of the secretion of the digestive juices, and the insufficiency of hydrochloric acid, favor the development of abnormal fermentations.

Thus, we have in these morbid states the type of auto-intoxications by infection, and the rôle of the poisons selected by the microbes in the accidents of putrefactive order is well proven.

The question now presents itself whether the morbid accidents of virulent diseases, properly so called, may not also have for their cause toxic products secreted by the pathogenic agents.

Naturally, there are two theories of virulence: First, in our bodies the microbes are injurious, because they consume the materials which the economy requires, or. Second, because they fabricate matters which are injurious.

Physiologists long remained in a state of uncertainty between vital competition and poisoning, and the idea that in virulent diseases the microbes act through soluble poisons by them manifested, was prevalent. In 1878 it provoked an attempt at experimental verification, when FIEGEL and ZAHN, injected the filtered culture of charbon, and observed that this product gave rise to no disturbances whatever. In the same year, this idea shaped itself in my own mind as a plausible hypothesis, though without making experiments to verify it. M. TOUSSAINT the same year, affirmed that, the anthrax bacillus fabricates, or excites the organ to fabricate, a substance which is toxic, soluble, intensely irritative, and capable of producing obliterations of the blood vessels, also softening, and ulceration of the walls of the capillaries, and consequently hemorrhages and infarcations. The following year, M CHAUVEAU advocated the same idea, on the basis of the following experiment:

He observed that charbon which, when in

oculated kills sheep, only renders the same animal in Algiers, refractory, and stated his belief that the suffering and general malaise experienced by the creatures which are not killed by the inoculation, are due to a soluble poison fabricated by the microbes.

Finally, M. PASTEUR, in the succeeding year furnished an experimental demonstration of this proposition. He filtered through plaster 120 c.c. of the culture broth of chicken cholera, evaporated to dryness in the cold, redissolved the extract in 2 c. c. of distilled water, and injected in a fowl, which speedily presented symptoms which resembled those which followed the inoculation of ordinary virus These symptoms, however, are not very peculiar, being generally observed whenever the hen is ill; nevertheless, the experiment demonstrated that the extract of the culture of a pathogenic microbe may be toxic.

In a communication to the Academy of Sciences, M. CHAUVEAU thought he had brought a new proof to the support of the idea which he had advanced hypothetically. In the veins of sheep naturally refractory to charbon, and of which the natural immunity had been reinforced by a series of anthracoid inoculations, he injected 15 to 70 c. c. of anthracoid blood, containing a number of bacilli estimated at 100,000; the animals immediately manifested more grave symptoms but did not die, and from this he concluded they suffered by blood poisoning, as he would not admit infection was possible. This experiment furnished interesting results, but the conclusions M. CHAUVEAU deduced are not perhaps legitimate. The injection of 100,000 bacteria, were we only to consider them as fine particles of solid matter, might have produced emboli, acting as inert substances, and entailing local lesions by circulatory troubles in important organs, due to ulcerations in stomach or intestine, pulmonary ecchymoses, or vascular obliterations of the kidney. But besides, he had injected living bacteria; rendering the complexity of the phenomena too great; it is impossible to estimate the effects which are really imputable to the toxic matter, as the latter was not isolated from its accompaniment of infectious agents.

I take to myself credit for having contributed an important element to the understanding of these facts, in my communication in 1885 to the Association for the Advancement of Sciences, concerning experiments relative to the injection of the urine of cholera patients into an animal refractory to cholera. I did not, as in the preceding experiments, take the culture of the infectious agent, but obtained the material from the infected organism. Without troubling myself as to whether the comma-bacillus was, or was not, the true pathogenic agent, I asked myself if the general symptoms of cholera were not attributable to a poison, and if there did not exist a cholera poison, the existence of which might be discovered in the products of secretion.

I endeavor to solve the problem by comparing the effects produced by the urine of cholera patients, both at the onset of the disease, and after the period of anuria, with those which are produced by the injections of normal urine.

I noticed that the urine of cholera patients has at first a toxicity common to all normal urine, in that it produces contraction of the pupil, muscular and respiratory enfeeblement, and diuresis. But besides this, I found that the cholera urine had a special toxicity, procuring cyanosis of the mucous membranes during the course of the injection; a subnormal temperature, more considerable than that which results from the injection of normal urine; cramps, which are distinct from the convulsions constantly produced by the urine secreted during sleep, or even by urine secreted during the waking hours—these cramps consisted in shocks with muscular rigidity of the members, and were produced in two to five minutes after the injection, lasting half an hour. I saw besides, that the hares in which this urine was injected were taken early with a specific diarrhœa, at first stercoraceous, then a whitish flux gradually becoming reddish—the microscope showed it consisted almost entirely of desquamated intestinal epithelium; it was a veritable choleraic flux of pea-soup consistence, lacking nothing but the comma bacillus.

There was no bile in the intestine, it being retained in the gall-bladder. The animals were affected with slight and temporary albuminuria, becoming more and more intense till anuria set in, and all died after three or four days.

Was it the cholera which I had given to these hares? No, it was only a peculiar kind of poisoning, with a certain resemblance to cholera, for there was no period of incubation, and the morbid accidents were immediate; besides, the phenomena were proportional to the doses of urine injected. With 12 c. c. and below, the animals survived; above 17 c. c. all died.

I know very well that in infectious diseases the intensity of the symptoms is probably also proportional to the amount of infection, but when we observe at the same time the absence of incubation, and the proportion of accidents to doses of morbific matter, we cannot doubt but that we have to do with toxæmia or poisoning.

Still another argument in favor of the poisoning theory is found in the comparative study of the extracts of choleraic urine. The spirituous extract produces certain accidents which resemble cholera, such as diarrhœa and albuminuria, which are not induced by the

alcoholic extract or normal renal secretion: the aqueous extract gives rise to only the ordinary symptoms of the injection of normal urine.

There exists, then, in the choleraic patient, a poison of which only one part is eliminated by the kidneys, and it may be that this poison, secreted by a microbe, is pathogenic, though I cannot positively assert such is the case; at all events, the injection of a culture of the comma bacillus, filtered or not, produces nothing like it. Other experimentors have extracted alkaloids which have produced in animals convulsions, but nothiug like those which choleraic urine causes; moreover, the comma bacillus has not yet been proved the morbid agent; or if it is, perhaps it does not produce any poison in the culture broth.

BRIEGER isolated a leucomaine from the culture of the typhoid bacillus, which he termed *typhotoxin*. Its formation is not accompanied by signs of putrefaction; neither sulphuretted hydrogen, indol, or skatol, are found, but merely an alkaloid which gives rise to double salts. This typhotoxin in the guinea-pig induces salivation, acceleration of respiratiou, diarrhœa, and death with the heart in systole —a phenomenon frequently observed in the sudden death of typhoid patients—but which is not immediate. It is not absolutely demonstrated that we have here the true typhoid poison, but we have in this knowledge another reason to suspect morbific action of the soluble substances fabricated by the pathogenic microbes. The demonstration of the reality of this view was made in a definite manner by M. CHARRIN in the pyocyauic disease from which we have already several times derived valuable lessons.

The intra venous injection of the culture liquid of the pyocyanic bacillus, in moderate quantities, causes fever, albumiuuria, diarrhœa, emaciation, spasmodic monoplegia or paraplegia, vesical paralysis, and death, and all this in from 15 to 20 days.

In animals which have presented this spasmodic paralysis, the autopsy has revealed that it is purely functional, there being no lesion of cord, nerves, or of their motor plates in the muscles, nor of the muscles themselves; it is a paralysis like that encountered in diphtheria and dysentery. If we inject a stronger or greater quantity of virus, we obtain more intense albuminuria, excessive fever, but no paralysis, and death is rapid.

If the animals have been protected by vaccination, the symptoms are more tardy, but practically the same: there is diarrhœa, a temporary albuminuria, and the animals appear well again; but paraplegia speedily sets in, sometimes at the end of one, two and three months.

The proof that these accidents are the result of poisoning by a toxic substance secreted by microbes, is the result which is obtained in other animals of the same species by an injection of the cultures of the pyocyanic bacillus filtered through a porcelain filter, and even heated so as to rid them completely of all living microbes.

After the injection of 24 c. c. under the skin, some little illuess is manifested, consisting in anorexia, slight diarrhœa, albuminuria, etc., but they speedily recover. On injecting 40 to 60 c. c. intense diarrhœa and albuminuria, coma and death, are successively induced in the course of a few hours.

A still stronger subcutaneous injection, given at intervals of five or six days, does not seem to affect the animal at first, but after a lapse of two or three months spasmodic monoplegia or paraplegia will set in, without lesion of the cord, nerves, or muscles, and identical, clinically and anatomically, with that caused by the injection of the complete virus, and which we are warranted in calliug infectious; this infectious paralysis must then be fundamentally of toxic nature.

This fact plainly shows that in certain infections there are phenomena of toxic order. The existence of these late accidents, showing themselves from two to six weeks after the cessation of the injections of the poison, is in consequence of nutritive disturbances, caused in the cells by the poison; they take place, without doubt, and are comparable to what we observe in poisonings by organic, or mineral poisons, in alcoholism and in saturnism; even when the patient has ceased to absorb any lead, we often, at a late day see toxic symptoms of a grave order manifesting themselves.

TUBERCULAR ARTHRITIS OF THE KNEE-JOINT; EXCISION.

BY J. B. MURPHY, M.D., CHICAGO.

This patient, whom I now present to you, some two years and a half ago received a slight injury to the knee joint. So trivial was it, that for seven or eight weeks it caused him no pain or inconvenience. At the end of that time it began to be paiuful, and became swolleu, which symptoms have increased in severity and produced the results I now present to you.

With this brief history, I will ask you. What is your diagnosis? Is it anchylosis? It admits of considerable motiou of the joint, therefore there is no anchylosis; besides, anchylosis is only the result of, and not *per se*, a disease. You notice, first, the comparative enlargement of the joint—I say *comparative*, because the enlargement in these cases is of two kinds, *comparative* and *real*. In the former the joint is not larger than the one on the opposite leg, but appears much larger on account of the atrophy of the muscles of the thigh and the calf of the leg. The real enlargement is where the joint has a greater circumference than that

of the other leg. The diseased joint in this patient measures twelve inches, the healthy joint only eleven. Now, in what anatomical part is the enlargement, and what is the pathological condition that causes this enlargement? What pathological changes are taking place within the joint? What kind of inflammation is this enlargement the product of? Is it specific? Or is it a non-specific, chronic synovitis, with effusion? The effusion in this case is very slight, and I will introduce a hypodermic syringe to find in what this fluid consists. You see it is sero-purulent, with flocculi; this enlargement is not due to the effusion. If we examine the contour of the bone, we find it is similar to that of the other side; therefore, there is no enlargement of the bone. We find on either side of the patella, a thickened pulpy mass. This thickened pulpy mass must be the synovial membrane and capsule of the joint.

The origin of this dates back to the traumatism received two and a half years ago. At the time of the injury there was more or less extravasation of blood in the synovial membrane—the white blood corpuscles carrying with them tubercular bacilli, which bacilli found entrance to the blood from some tubercular lymph gland, local lesion in the respiratory tract, through some abrasion in the alimentary canal, or from some other nidus of tubercular disease within the body. These bacilli, or their ptomaines, deposited here, produce a specific form of inflammation. The microscopical characteristics of this inflammation are an increased deposit within the tissues of white blood corpuscles, with here and there a giant cell, and the specific tubercular bacillus.

As this degeneration advances, we find small deposits of caseous matter, or, still further advanced the calcareous deposits, the latter rarely found in connection with diseases of the joints.

The macroscopical changes are, great thickening and softening of the capsule, gradually extending over its entire extent, involving the inter-articular ligaments and producing a condition of pannus, the cartilages gradually becoming more and more opaque and granular. Finally, a mass of granulations beginning at the margins and extending over the entire surface of the cartilage, penetrating through the cartilage, softening and destroying it as they advance, until it is entirely destroyed, and the granulation base extending into the bone, producing a fungoid caries. The joint can become involved in tubercular arthritis in another way—when the disease originates in the bone as a tubercular ostitis in the upper extremity of the tibia or condyles of the femur, gradually extending into the femur and opening into the joint. About forty per centum of the cases met with in practice originate in this manner. A tubercular deposit in the articular extremities of these bones may open beneath the periosteum from a sinus, and be evacuated at the side of the bone without involving the joint. A case of this kind came under my observation in the hospital last winter in which I enlarged the sinus, removed all of the granulations and cancellated tissue of the bone, and had an excellent recovery with perfect use of the joint. Before the formation of the sinus, it is impossible to say whether the disease originates in the bone or in the synovial membrane. After the cartilages are destroyed, Nature makes an effort to produce anchylosis by ossification between the denuded ends of the bone. This is rarely accomplished, as the destructive process is so irregular, and the involvement of the bone at different places differs in degree, so that there is not sufficient surface brought into contact for its production.

Artificially, we hasten the production of an anchylosis by removing the articular surfaces of the bone, all of the diseased synovial membrane, and the patella. It is not absolutely necessary to remove the latter when it is not diseased, though statistics show that better results are produced where the patella is removed. The bones are kept in position by wiring or nailing them together, and if there is no suppuration, a primary ossification takes place the same as with an aseptic compound fracture.

I will now begin the operation, making a crescentic incision from the internal condyle downward and across the ligamentum patella to the external condyle, cutting through the ligament and laying open the joint. Here you see the sero-purulent fluid, with flocculi; the soft, pulpy granulations of the synovial membrane, which can be displaced by the pressure of a finger; the condition of pannus of a portion of the cartilage, the granulation mass, which has already honeycombed it, producing these small carious holes in the bone, also an erosion of the patella, making a complete and typical pathological picture of fungoid arthritis which originated in the synovial membrane near the external condyle. I will now remove about three-fourths of an inch of the lower extremity of the femur with a saw, protecting the vessels in the popliteal space. Next, I will remove three-fourths of an inch of the upper extremity of the tibia; then comes the most difficult part of the operation, the dissecting out of the diseased capsule. You see, in placing the ends of the bones in apposition, I have a straight limb, with a very slight anterior curvature of the knee. I will now put in two silver wires, one in the external and the other in the internal condyle, unite the flap with a continuous suture, putting in a bone drainage tube at either angle of the incision, put on a heavy antiseptic dressing, remove the Martin's band-

age, and place the limb in a plaster cast, not to be disturbed for three or four weeks unless he has an elevation of temperature indicating suppuration.

I have removed as little of the bone as possible, so as to preserve a portion of the epiphysis, so that the bones will grow in length, the same as the ones in the leg. If suppuration does not follow, we will obtain a primary bony union in from four to six weeks. Should it suppurate, it will be a secondary bony union, and involve a much longer period of time.

The mortality from this operation is now reduced to a minimum through the advantages offered by the antiseptic dressing and the early operation, *i. e., before the formation of a sinus.* The ultimate result is an anchylosis, with a shortening of one and a quarter to two and a half inches, though a perfectly useful limb.

A CASE OF TUBERCULOUS ABSCESS OF THE TARSUS.*

BY D. A. K. STEELE, M. D., CHICAGO.

I show you a case of tuberculous abscess; the patient, 44 years of age, says that two or three years ago, in trying to stop a ball by throwing up his right foot, he receiving a blow on the outer surface of the instep or tarsus, to which he paid little attention, but two or three weeks later noticed he was lame. The soreness, lameness, and swelling gradually increased, and grew worse in spite of various liniments and local applications. At first glance it would seem as though he were suffering from a Pott's fracture, as there is eversion of the foot, prominence of the internal malleolus; but there is also softness of the tarsus, resembling in some degree the extravasation of blood that comes from rupture of minute capillary vessels in the connective tissue. We have an indistinct, soft, doughy feel, slightly fluctuant, moderately painful, and by palpation an impulse which can be transmitted to the outer side of the foot. With this history, at this time of life, it can mean but one thing, probably, and that, *abscess of the tarsus*, possibly not communicating with the ankle-joint, possibly implicating only one, two, or more, of the seven bones that make up the arch of the foot.

I shall make an exploratory incision into the tarsus over the point of greatest prominence of swelling. If we have to deal with a tuberculous abscess—and from external appearances we have—we will give free exit to the shreddy pus and tuberculous granulations that line all abscess cavities of this sort—those soft, flabby, easily broken down granulations to which I have called your attention in my lectures from time to time,—then with a sharp spoon curette, clean out the abscess-cavity. If we find erosion of cartilage, or that we have soft or carious bone, tubercular ulceration or destruction of some of the tarsal bones, the spongy, infected portion of them will be removed—in short, all the parts that are diseased, paying but little attention in the operation to following the anatomical outlines of bone. We will go for diseased tissue wherever it can be found without regard to the direction in which it extends, even though we may have to open up the ankle-joint. It is a good rule to remove all the diseased tissue. If, after clearing out the abscess-cavity, we find what I have described, we will pass a drainage tube from side to side so as to afford free drainage. We can cut and lacerate the lateral aspects of the foot without interfering with the powers of locomotion.

* Clinical lecture delivered at the College of Physicians and Surgeons, Chicago, Ill.

CLINICAL NOTES ON THE CAUSES OF DEATH IN TYPHOID FEVER—A SEQUEL OF TYPHOID, ETC.

Case I. Hæmorrhage of the Bowel.—Admitted with "walking typhoid," which probably had set in five days before. The nervous symptoms were very marked; so much active delirium existed that morphia did no good. Hyoscyamine in $\frac{1}{100}$ gr. doses did a little better.

On the eighth day, profuse hæmorrhage set in, followed by improvement of all the symptoms, with the exception of the weakness. The temperature fell from 103⅘ to 99⅘, the nerve trouble subsided, and the patient was in better condition apparently. This improvement of symptoms following hæmorrhage is a common occurrence. Unfortunately, in the fourth week there was a recurrence of the hæmorrhage, when the patient died from loss of blood. Hæmorrhage in typhoid comes from the separation of a slough which, in dropping off, exposes a blood vessel. When hæmorrhage occurs late in the disease, it is usually due to the extension of the ulceration to the deeper tissues, where the engorged glands are scattered. This may also cause hæmorrhage early in the disease. This patient had but little diarrhœa, showing that no connection exists between this symptom and the extent of the ulceration.

Case II. From Peritonitis.—Admitted with symptoms of typhoid, in a mild degree, there were but few spots, no delirium, no engorgement of the lungs. The abdomen was distended, painful and tender. Vomiting set in on the ninth day; patient grew weaker, died in collapse in three days from peritonitis. Perforation may result from extension of inflammation, but this is exceptional, or from rupture of mesenteric gland.

* Notes from a lecture by Prof. William Osler, of Johns Hopkins University

Case III. From Exhaustion.—Symptoms of typhoid ten days before admittance. Temperature 103°; delirious; pulse weak and rapid; general condition grew rapidly worse, and death followed in six days, from exhaustion. Death from this cause is rare at the end of the first week, more common at the end of second or beginning of third week. These cases form the large proportion of fatal terminations.

Case IV. From Pneumonia.—Swede; had, on admission, a diffuse scarlatina-like rash over chest and abdomen, extending down arms and thighs. This erythema is occasionally seen in typhoid. In ten days showed signs of consolidation of lung; heart became weak, first sound absent; dusky coloration of skin. Died four days later from extensive pneumonic consolidation of right lung. No medicine could aid failing heart.

A Sequel of Typhoid.—A boy had mild typhoid symptoms when admitted. His temperature has been normal for a week; in fact, it is now a little subnormal; tongue is clean, general condition good, abdomen a little tender, flatulent, distended. Opposite anterior superior spine in the right inguinal region, is a firm, solid, irregular mass, large as an orange, but when his attention is distracted is found not to be sensitive; can be altered in shape. It is simply fæcal impaction in the cœcum and first part of colon. His abdomen will be rubbed with sweet oil, and a large rectal injection follow. There has been no passage from the bowels for a week.

A Remedy for Tubercular Diarrhœa.—A physician in the country has sent me the following excellent formula for use in cases of troublesome tubercular diarrhœa:

℞ Morphiæ acetat., gr. ii,
Plumbi acetat., gr. xlviii.
Acidi acetic dil., ʒ ij.
Syrupi, ʒ iv,
Aquæ, q. s. *ad* ʒ iij.

BODIES IN THE URINE.

Some specimens were sent me by a practitioner in the South who wished to know if I regard them as hydatid. They were found in the urine of a woman of about sixty, emaciated and cachectic, and excited in her great alarm and anxiety. They were two to three inches long, as thick as a slate pencil, of a dark red color, and resemble nothing more closely than a common earth worm. They proved to be, however, molds or casts of the ureters and consisted of blood; they may follow nephritic colic, but more commonly occur with cancer of the kidney.

Correspondence.

EPIDEMICS WHICH SHOULD HAVE BEEN PREVENTED.

The Secretary of the State Board of Health writes the AGE as follows:

In connection with the severe outbreak of typhoid fever at Negaunee (where there are now 75 to 80 cases) which the State Board of Health has been called upon to investigate, it is of interest to know that the law which requires every city to have a *physician* for health officer had not been complied with—no physician being willing to accept the position for the remuneration offered by the council. Any one physician seems to think he can make more money treating the sick than the entire city is willing to give for the prevention of sickness.

During the week, the State Board of Health has been called upon to aid in restricting an epidemic of dysentery of a very severe type in the village of Stockbridge. In this outbreak there have been eight deaths, and there are now fifteen cases. Stockbridge also failed to comply with the law requiring every village to have a physician for health officer.

The list of health officers in Michigan, published by the State Board of Health, shows that this law is generally complied with,—47 cities and 176 villages having physicians as health officers. It is significant that two such unrestricted outbreaks should occur in one week in two localities which are delinquent.

EDITOR MEDICAL AGE:

My Dear Doctor:—I enclose a letter* which, through the kindness of the Post Master fell into my hands a short time since. It "speaks for itself," and its richness is too good to keep. Can you not find space for it in the AGE? A *fac simile* would no doubt be enjoyed by many of the readers.

Yours fraternally.
EUGENE SMITH.

port huron ste mich august 14 1889.

Dr. i like to let you now how to take a catract from the eye wittout cutting the scin and pulling it out i have found A way to absorbed it A way with medison and take it of if you would like to now plese Drop me a line.

i have applide for a pattend.

CALVIN CHEESMAN.

port huron ste
mich

[* This letter was addressed by its writer to the Post-master at Detroit to be delivered to the "best Mye Doctor in Detroit."—ED.]

The Medical Age.

A SEMI-MONTHLY REVIEW OF MEDICINE.

B. W. PALMER, A. M., M. D., Editor.

—Published By—

GEO. S. DAVIS, Medical Publisher, Box 470.

DETROIT, MICH., SEPT. 25, 1889.

Editorial.

QUALIFICATIONS FOR SUCCESS IN MEDICAL PRACTICE—THE MEDICAL STUDENT OF THE FUTURE.

Apropos of the various addresses to students at the opening of the medical schools, the *British Medical Journal* publishes in its "students' number," Sept. 7th, a scholarly and inspiring article pointing out the heights, scientific, social, and humanitarian, which the physician may in these days aspire to. We regret that we cannot reproduce the article entire for the readers of the AGE, and would commend the original for perusal to all medical students, and to practitioners as well, who need inspiration and higher ideals in the practice of their profession:

Sneer as we may, be as worldly and unpoetical as we please, the profession of medicine *is* a noble one, and can but fill with enthusiasm the mind of any competent and thinking man who speaks or writes about it. The reasons which urge us to any course of action are usually complex, and those which impel a man to the choice of a profession are largely so. We may assume, without the least offence, that most men enter on the study of medicine as the means of obtaining an honorable living; it is not necessary to pretend to any higher motives like that which should influence a student of divinity. Yet there is room, we maintain, for the exercise of the very highest motives in the choice of the healing art as one's calling in life; and the influence is likely to have an actually greater scope, and the end is often even more likely to be achieved, when it is concealed by the friendly covering of the less exalted motive.

There are hundreds of medical men in our land to-day who lead lives of the loftiest enthusiasm, working for the good of their fellowmen, and blessing all within the scope of their influence, pretending with a beautiful humility that they are only following their common business, while they are actually ministering angels. A doctor may live and work for fees, and be respected just as any other servant of the commonwealth; he may also live and work for humanity and the love of his neighbor as though he were ordained for the proper work of the ministry. Grand and beautiful as was the work of Father DAMIEN amongst the lepers of Molokai, there is no reason whatever why a medical man should not have done as much or even more. "Nothing great," says EMERSON, "was ever achieved without enthusiasm," and we know it to be so, whatever the hard cold world may say, which, in truth, does not greatly care for anything which it cannot quite understand.

What is wanted is a noble ideal: given this, it may be exercised as freely in our profession as anywhere in this world of ours. What a man seeks at his medical school this October, that shall he find. Honors, they await him; emoluments, they shall come; happiness, the great enduring pleasure that comes from a sense of duty bravely done, this too shall be his, at the price—at a fixed price and no abatement: to this let him make up his mind as quickly as may be. Let him examine himself, and know what it is he wants: he can certainly obtain it.

The thing, therefore, to be sure of at the outset in devoting one's self to medicine, is the end proposed; if self, then not happiness of the highest sort also; if peace of mind and the purest sort of happiness be the end in view, then to live and work for others, for the advancement of the profession in its widest and grandest aspects, is the only certain way to obtain them. Old THOMAS VICARY, Chief Surgeon to St. Bartholomew's Hospital, 1548–62, says in his curious *Anatomie of the Bodie of Man*, that the doctor must be learned, must know his principles, be seen in natural philosophy, in grammar, must speak congruity in logic, speak seemly and eloquently, know things natural and non-natural, and, above all, be good-looking, for whose face is not seemly, it is impossible for him to have good manners.

All this implies much more than is demanded for the mere cramming up for professional examinations. Be liberal in your treatment of the most liberal of all professions, and give at least as much as you take. How few men ever think of paying the least fraction of their indebtedness to science! They consider this is all arranged for in their hospital ticket. Such men

> Know, not for knowing's sake,
> Know, for the gain it gets, the praise it brings,
> The wonder it inspires, the love it breeds.

No man striving only for his own happiness can ever attain it, because he is in the midst of forces contending against him set in motion by every other man of the same determination. Count TOLSTOI has admirably explained why this struggle for individual happiness must necessarily fail of its purpose, and Mr. BROWN

ING, in his magnificent poem of *Paracelsus*—which should be known by heart by every medical student of the thoughtful sort—has pointed out how mere knowledge for a selfish end can never bring happiness, whatever else it may achieve, but that love allied to knowledge can transform the soul to God-like beauty. We may long, like Paracelsus,

To wring from Heaven some wondrous good for man:

but it may not be given to many of us to do great things. Of every medical man, however, society—having in view his great endowments, his privileges, his public estimation, and the dignity of his calling—has the right to expect maintenance of the fabric, if not its adornment, and, as he is necessarily looked up to as a "doctor," that he shall be a real teacher of how to live the highest mental as well as the healthiest bodily life. As Sir J. CRICHTON BROWNE pointed out recently, this can best be done by imbuing our own minds with the prolific and ennobling thoughts of the wisest writers of the past and present; for to teach we must learn. Some will say we ask too much of the overtaxed medical student. Not so. The mental enlargement we demand can be had as relaxation between the intervals of necessary studies. One hour a day with the great poets and prose writers will enable the student to do better work in the medical school; he will not lose his time by this form of dissipation; and when he goes into the great world which lies outside his hospital, he may find his own medicine and that of his patients in the balm for troubled spirits which the philosophers and poets of all time stand by to minister. We say he will not lose his time by this expansion of his education; it will serve to digest his technical knowledge, to combine and blend his studies into a truer and sounder learning than can be tested by examination papers or rewarded by degrees.

Let no student, therefore, think that so much anatomy, physiology, medicine, and surgery, signed up and certified for at school and college, suffices to make the medical man of to-day. In one of the most suggestive of the inaugural addresses delivered in London last October, that by Dr. WILLIAM EWART at St. George's Hospital, this point was strongly emphasized. We cannot refrain from recalling a sentence or two. "Among the youths," says Dr. EWART, "who elect to follow this calling, many do so in ignorance of what the choice implies. Of no other profession is it more true that an easy entrance examination is unkind. Ours, nowadays more than ever, is an exacting profession. Although neither genius, nor brilliancy, nor even talent are wanted, she claims energy, physical and mental, capacity for sustained efforts, earnestness, and a high moral tone."

A medical practitioner whose whole life is not that of a persevering student has no business in the profession. A man who knows nothing but what his curriculum enforces, and who makes haste to forget that as soon as it has obtained him his license to practice, can only bring discredit on the high-minded and cultivated men who spent their lives in making smooth the path he has unworthily trodden. If medicine is to hold its high position and retain the respect in which it is justly held, the men who are coming forward for its emoluments and distinctions must be equipped with all the richer learning which is required to enable them to hold their own in the world which is daily becoming more highly cultured, and which will certainly demand more of its medical advisors. A mental outlook bounded by six-ounce bottles, and an intellect from which there is gradually fading the scanty lore gathered at the medical school with much pains and but partial comprehension, far too generally characterizes the middle-aged general practitioner of to-day. He of to-morrow will need to know more, and to know it in quite another way.

THE THERAPEUTIC VALUE OF MUSIC.

Surely this is an age of therapeutic progress, when all the agencies, even of psychiatry, are invoked, and no stone left unturned to discover some hitherto unknown feature in the psychic domain which can be turned to account in the management or relief of the ills which all flesh is in greater or less extent heir to.

That music possesses great power in influencing the habits of individuals, races, and people, is not to be gainsaid. It is a subtle educator, calling up at one time the purest and finest sensibilities, soothing perturbed emotions, on another exciting the fiercest passions, and in other ways exerting a psychic influence that is scarcely at all understood in its relations. That it acts by stimulation of mental faculties, intensifying imagination, is patent. Also that it is a soporific is evidenced by the fact the child has yet to be born that cannot be lulled to slumber by its influence. As proven by CHAS. DARWIN, it exerts a marked influence on lower animal kind—horses, deer, birds, reptiles, fishes, and even annelides—hence its effects should be, and are, more definite and marked in man, who stands at the head of all mundane life.

From the earliest ages this has been more or less admitted, and ancient history affirms that from time immemorial music has held prominent place among the Arts and Sciences, besides being frequently interwoven as a prime factor of therapeutics.

The Greeks claimed for it divine origin; and DIODORUS SICULUS suggests it was "A boon

bestowed upon mankind after the deluge, having its birth in the sounds induced by wind whistling through the reeds of the Nile."

In ancient Egypt, certain songs were legally ordained in the education of youth to promote morality and virtue, while the therapeutical virtues of poetry and harmony were freely acknowledged. Music, too, was a considerable and honorable source of income in Greece, and we are informed by PLUTARCH that the father of ISOCRATES was a flute maker who realized a fortune from his calling that enabled him to vie with the most wealthy Athenians. ISMENIAS, a celebrated musician of Thebes, gave $2000 for a flute, and AMŒBÆUS, the harper, received an Attic talent, or above half this sum, for each performance. The beautious LAMIA sang, and played the flute so exquisitely, as to be deemed worthy of divine honors, and a temple was dedicated to her under the name of Venus Lamia. Again, the *Tibicinæ*, or female flute players, who formed collegiate bodies, were celebrated alike for talents, personal charms, licentiousness, extravagance, and the ease with which they influenced the passions and emotions: and in the time of JUSTINIAN, the sister of the Empress THEODOSIA who was renowned as an amateur *tibicina*, appeared upon the stage in a costume vieing with that of APHRODITE when she rose from the sea.

HEROPHILUS explained the alterations of the pulse by the varied modes and rythms of music: in several instances in Scriptural Literature, we find music employed to sooth the disordered mind, and calm troubled emotions—even the insanity of SAUL yielded to the harp of DAVID, and ELISHA was thrown into an ecstasy by the "strains of the minstrel."

Again we read that PYTHAGORAS directed mental disorders to be treated by harmonious sounds; THALES was accredited with relieving Sparta of a dangerous pestilence thereby; XENOCRATES found therein a cure for maniacal conditions; ASCLEPIADES deemed it a sovereign remedy for some forms of deafness; and THEOPHRASTUS maintained sedulously the poison of venomous reptiles might thus be neutralized. PLATO teaches that everything in the Universe is music; POLYBIUS records that it was necessary to soften the manner of the Acadians, and in no place were so many crimes committed as in Cynetus where the art was neglected, a statement nearly parallel to that of LUTHER the Reformer, who employed to sooth his moments of doubt, superstition and anxiety, and declared that where it is, "the Devil is not," and that "Music is one of the most beautiful and glorious gifts of God, to which Satan is a bitter enemy."

MARTINUS CAPELLUS affirmed fevers might be heightened, lessened, exacerbated, or altogether removed through the influence of music —a statement embodying at least two truths that are admitted by modern pathologists. DESAULT deemed it of material advantage in consumption, and as possessing unheralded virtues in the relief of all mental disorders and neuroses. GALEN recommended vibrating musical instruments be directly applied to diseased parts; and some of his contemporaries imagined a "flute of hellebore" an infallible remedy in dropsical maladies. Be this last as it may, it is certain that in many, more particularly a class of hysterical females, music is apt to produce profuse diuresis, and one lady known to the writer could never listen to the strains of the higher octave of the violin with out losing all vesical control; the same has also been observed in cats, hares, and other animals.

Mythology lays great stress upon the effects produced by harmonious sounds, for HARAUD is said to have sung and played so divinely that the beasts of the mountains and trees of the valley were made to dance, statements paralelled in the never-to-be-forgotten melodies of our infancy, accredited to "Dame ANSER." ORPHEUS so charmed PLUTO and his stony hearted spouse that they willingly granted his requests, and during the performance of his melodies the stone of SYSIPHUS and wheel of IXION became motionless. AMPHION employed his lyre to build the fortifications of Thebes; the Finnish god WAINAMONEN struck his cithern to calm the wind and waves; and a famous Hindu bard-deity was so potent that when he sang an ode dedicated to Night, the sun hid its face, and darkness obscured all space within the sound of his voice.

Again TYRTAEUS by his recitatives so inspired the flagging energies of the Lacedonian army that they were enabled to turn defeat into victory; according to TACITUS and POLYBIUS the Gauls overcame HANNIBAL, being inspired to unparalelled fierceness by the chants of their bards, results that accrued in more than a score of instances in the history of the Celtic tribes and Gaelic clans. Even the misfortunes of JAMES II of England were due chiefly to the Celtic ballad of *Lillibullero*.

In the early ages of Christianity the power of music in adding solemnity to religious ceremonies and rites was duly appreciated, and many of the prelates and "Fathers" cultivated as an auxilliary art. ST. GREGORY expressly sent AUGUSTINE the monk with a choir of singers to England, who entered Canterbury chanting a litany, and speedily had the whole city at their feet. ST. DUSTIAN, in spite of the fact that JULIAN the Apostate refers to such an instrument, is accredited with the invention of the organ, and also of a magic harp: it was, perhaps, to prove the falsity of the latter that he so vigorously tortured "Auld Clootie" by seizing his nasa appendage with a pair of tongs.

The whims of musical composers are numerous, and evince the power their calling exercises upon the nervous system. GLUCK could compose only in a garden; SARTI required a dark room; PAESIELLA retired to his bed; SACCHINI drew inspiration from a cat perched on his shoulder; HANDEL, HADYN, PAGANINI, MOZART and BEETHOVEN from musical instruments; WAGNER from crimson garments and an apartment hung with the same lurid colors. Also the devotion to the art, and the regard held for it by the fair sex, has proved fatal to more than one of its devotees, for we find MARK SMEATON involved in the misfortunes of ANNE BOLEYN; THOMAS ABEL, who instructed CATHERINE in harmony, met a like fate; and "DAVIE" RIZZIO was no less unfortunate. They were perhaps too much imbued with the doctrine of CLOTEN, who gave ladies "music o' mornings" because it was "more penetrating."

Modern history presents numerous evidences of the power of music for good or evil, and of its sedative effect upon perturbed nervous systems. FARINELLI'S almost magical cure of the melancholia of PHILIP of Spain is too well known to require repetition. The effect of music to enliven, or to bring tears, has ever been admitted, and in consequence many nerve specialists are wont to prescribe concerts and opera for their patients.

From the Middle Ages down to the early part of the last century, when obscure diseases were attributed to the "Devil and his imps," harmonious sounds in the way of chants and intoned litanies were employed to dispossess the myrmidons of Evil, and to-day the *Powah* or "medicine man" of the savage, chants songs for the relief of the bewitched, and the like are prime factors in all his incantations: the same is also true of the priesthood of the Greek, Latin, Mahommedan and other faiths when their parishoners exhibit too great familiarity with *Old Hornie*. Doubtless such is the origin of the slow and plaintive music which modern wizards and prestidigitators require to accompany their performances.

Musical notes after striking the membrana tympani, are carried through the middle ear to the labyrinth, and on reaching the organs of Corti (situated in the cochlea) are conveyed by the nerve filaments to the auditory centre of the brain, where they produce, according to their kind or class, a stimulating or sedative effect. This influence is ultimately transmitted through the various nerve ganglia to the vasomotor system of nerves, which exercise control over the vascular channels and produce dilatation or contraction of the vessels, thus inducing an accelerated or retarded circulation. Hence also, an exhausted nervous system can, by external influences, and without any aid of the individual, be brought by gentle stimulation into a condition of renewed energy. A stimulated nerve or plexus, induces a like condition in every part of the body to which its filaments or dependants are distributed: and as the nerve centres are prime agents in the generation and conduction of nerve forces by which every movement of the body is called in action, we can easily comprehend what the result must be when such nerve centres are stimulated in the slightest degree.

All creatures, however, are not constituted alike. As CLAXTON, of Edinburgh remarks: "some exhibit a defect in the construction of the organs of Corti, and are not able to distinguish clearly between noise and music," a statement which leads us to believe he had recently listened to a composition by VERDI or WAGNER, or to one of THOMAS' concerts. Others again, are very sensitive to tones and gradations of tone, and consequently quick to determine harmony from blare or jingle.

The cases in which music seems most suited therapeutically, are those of mental depression and unsoundness, hysteria, and hypochondria, when a subtle sedative effect is desired, such as alone can be produced by soft subdued harmony and melody. Melancholia, monomania, and depressed forms of hypochondria, however, would be more benefited by harmonious stimulation, such as is found in strathspeys, reels and boleros. Again, there are many cases that would be most benefited by a combination of the two—music of a transitional nature, wherein there are abrupt changes from the major to the minor key, and *vice versa;* or where the time breaks suddenly from *adagio* to *allegretto*, returning again. Undoubtedly, properly applied, music may be prescribed by a musical medical man with marked benefit, though it can never prove more than an auxillary to other therapeutic measures.

TERTIARY SYPHILIS.

At the International Congress of Dermatology and Syphilography, held in Paris, August 5–10th, 1888, there was an interesting discussion on "Tertiary Syphilis, its Relative Frequency, and the Conditions Favorable to its Development."

NEUMANN gave as the most efficient causes of tertiarism: Insufficiency of treatment (both in respect to doses and duration); constitutional vices, such as tuberculosis, scrofulosis, scurvy; and all the causes of physiological depravement. He believed the inteusity of tertiary syphilis is independent of forms, of the gravity of the initial lesion, and of the secoudary phenomena.

DRYSDALE thought 8 per cent. of syphilitic patients treated without mercury arrive at the tertiary period. He now believes, contrary to his former teachings, that the mercurial treat-

ment possesses some prophylactic power against the invasion of tertiary symptoms.

CHARLES MAURIAC would limit the discussion to acquired syphilis. His conclusions being:

1. In acquired syphilis tertiary accidents are not inevitable like secondary symptoms, and there are 80 to 90 chances in 100 to escape the former in the ordinary conditions in which syphilis runs its course.

2. The time of the appearance of tertiary accidents is most variable, and there are exceptional cases where they do not show themselves until a lapse of forty-five, or sixty years after chancre; though the average time is between the third and the sixth year after infection. There are, however, visceral forms of the disease, remarkable for their precocity, among which cerebral syphilis occupies by far the most prominent place as to frequency and gravity.

3. The most frequent tertiary syphiloses are those located externally, on the skin, mucous membranes, and in the sub-cutaneous cellular tissue. The gummy neoplasms, circumscribed or diffuse, disseminated or confluent, although much less common than formerly, still comprise almost half of the cases of tertiary, and are extremely apt to follow, in short space of time, an ulcero-phagedenic primary lesion.

Syphilis of the bones is more rare than formerly, but pharyngo-nasal syphilis is still common. Among the tertiary lesions of internal organs, those of the nervous centres preponderate; patients affected with secondary of moderate intensity have most reason to fear tertiary determinations to the nervous centres, especially the cerebrum. Syphilomata of the liver, lungs, kidneys, and heart are relatively rare, and are not to be dreaded during the first few years following infection. Patients may have visceral syphilis without ever having had tertiary syphilides, and multitudes have the latter in severe form without ever having had manifestations of the former.

FOURNIER furnished some interesting data from notes of 3,429 cases of tertiary observed during 20 years. With regard to the date of appearance, he says: "The relative frequency of the manifestations undergoes considerable *accession* from the first to the third year of constitutional syphilis; it attains its acme at the third year; and from the fourth to the eleventh year it decreases continuously, rapidly, and regularly, while still maintaining a fairly high rate; but during the ten succeeding years it keeps on decreasing, though more slowly. After this period it maintains a uniform, though very low level, and this is the stage during which tertiary syphilis may be regarded as rare. After the thirtieth year, tertiary becomes veritably exceptional."

From analysis of FOURNIER'S statistics, contrary to the received opinion, tertiarism may be early, and manifest itself even during the first month after constitutional infection, and moreover the numerical maximum of its manifestations corresponds to the first years of the diathesis. With regard to the relative frequency of tertiarism, he remarks nervous lesions stand first; dermo-syphilides, second; lesions of bones, third; and pharyngo-tracheal and oro-nasal, fourth. In 3,429 cases, 157 were lesions of the genito-urinary organs, usually of the character of circumscribed syphilides ("chancriform syphilides"), which are not infrequently mistaken for primary sores.

A datum of great importance is the extraordinary number of cases of nervous syphilis (1,085), which warrants the conclusion that the nervous system is more prone than any other part of the organism to take on tertiary disease.

HARLAND, of Copenhagen, summed up the conditions of tertiarism as: Lack of treatment of symptoms of secondary period; defective or insufficient mercurialization in the secondary stage; alcoholism; previous or subsequent infection by malarial or other climatological fevers; simultaneous existence in the organism of other grave chronic and general infection; congenital syphilis, and infection at either a very early or advanced age; conditions of existence that occasion diminution of the resistive force of the organism—bad hygiene, poverty, etc.; and intolerance of mercury.

Apropos of the communications of FOURNIER, MAURIAC, and HARLAND, it was remarked that tertiary symptoms are oftener early than has been heretofore supposed, a view which makes havoc of the ordinary divisions of syphilis into primary, secondary, tertiary, and even quaternary, periods.

It is now agreed that there is nothing definite about the order of appearance of tertiary accidents. What is characteristic of the period called tertiary is the *destruction* of tissues by *non-resolutive lesions*, and therefore it has been proposed to abandon the ancient division for one more in harmony with the facts, and to define the secondary and tertiary manifestations respectively as *resolutive* and *non-resolutive syphilosis*.

CHLOROFORM ACCIDENTS.

The fatal results which sometimes attend the use of chloroform are not always due to impurities in the anæsthetic. According to Prof. DASTRE, the number of deaths published due to chloroform, from 1847 to the present time, are about 300. The united statistics from English and American sources (ANDREWS, COLE, and RICHARDSON) claim a mortality of less than one in 2931, while the statistics of the late Civil War, lower the rate to one death in 11,448.

The real danger of chloroform is the heart, and not the respiration, and it is from the former the principal contra-indications are derived, for if chloroform induced respiratory syncope this could with certainty be remedied by artificial respiration, while in arrest of the heart's action we are without resource. This is the theory promulgated by DASTRE.

Contrary to general opinion, arrest of the heart is not a phenomenon of paralysis, but excitation of the moderator nerve of the heart, or the pneumogastric (bulbar) centre.

From researches that have led to the foregoing conclusions it is determined that the means of providing against the dangers of chloroform anæsthesia are:

1. The suppression of the activity of the pneumogastric, a result which may be obtained by means of a sufficient dose of atropine.

2. Economy in the use of chloroform.

DASTRE advocates what he terms the "*mixed method*," which consists in the judicious administration simultaneously of atropine, morphine, and chloroform. "If you could cut the pneumogastric," he says, "you would prevent cardiac syncope; but as this cannot be done you can do the next best thing, viz: paralyze by atropine, which destroys the excitability of the cardiac filaments of the vagi and of their bulbar nucleus."

Atropine, however, cannot be employed alone, as it produces phenomena of excessive excitation, often more noisy than dangerous, but which are desirable to avoid; and these can usually be obscured by association with morphine. This method has been tried in operative physiology, and its success apparently established. Dogs are much more susceptible to chloroform poisoning than men, and physiologists lose one out of every three which they anæsthetize for vivisection purposes. For the past ten years, however, all canines employed for physiological experiments in the laboratory of the Sorbonné, have been anæsthetized by the mixed method without a single death. A typical, absolute, complete anæsthesia, without agitation, with perfect resolution, lasting two and three hours, is obtained, and with a minimum quantity of chloroform. In Lyons surgeons have long resorted to this plan in their operations, employing subcutaneously for an adult patient, (fifteen or twenty minutes before the operation) one cubic centimetre and a half of:*

Chlorhydrate of morphine, 10 centigrammes,
Sulphate of atropine, 5 milligrammes,
Distilled water, 10 grammes;

and M. Aubert says: "I know of no better method, its advantages being, safety, rapidity, absolute calm of the patient, readiness with which the patient is awakened, and absence of unpleasant sequelæ (nausea, vomiting, etc.)" He further adds this method has been employed in "thousands of cases without a single fatal result."

* About 1-6 grain morphine and 1-100 grain atropine.

BACTERIOLOGICAL RESEARCHES ON DISINFECTION BY SULPHUROUS ACID.

Under the direction of DUJARDIN-BEAUMETZ, M. M. DUBIEF and BRAHL have carried on a series of experiments in Cochin Hospital to ascertain the microbicide effects of gaseous substances, and in particular of sulphurous acid.

In a room hermetically closed, the experimentors collected by means of a Miquel flask the germs contained in a litre of air, and diffused through fifty culture flasks containing sterilized and alkalinized beef broth; then sulphur was burned in the room. After twenty-four hours a new "catch" of air like the first was effected, and the germs were soon in the same number of sterilized flasks.

The number of atmospheric germs was always more feeble after the sulphuration than before, and was the more so in proportion to the moisture of the air. In the normal state, the bacteria and micrococci were especially numerous, the mercedines much less. The proportion was the reverse after sulphuration.

To verify whether the sulphurous acid acts in the dry state, the dust of a given quantity of air was collected on two plugs of cotton contained in a glass tube sterilized by heat at 200° C. On subjection of these plugs to the action of a current of pure and dry sulphurous acid for 48 hours, and sowing the contents in nutrient gelatin, it was found that the quantity of germs was more feeble. From these experiments, the following conclusions were drawn:

Gaseous sulphurous acid has an evident microbicide action on the germs contained in the air. This action manifests itself especially when the medium is saturated with vapor of water. It acts particularly on the germs of bacteria. It may destroy the germs in the dry state when the action is prolonged.

From the above experiments, it will be seen that the germicide action of this gas is a real fact, and that this action is particularly manifest when the atmosphere is saturated with moisture. It is true that there has of late been a tendency to distrust the gaseous disinfectants, and certain German and Russian experimentors seem to have demonstrated the worthlessness of sulphurous acid fumes, but these experiments were vitiated by the fact that the extreme diffusibility of the gas was not sufficiently taken into account, the rooms in which they were performed not being hermetically tight. Certainly, experience in armies, asylums, prisons, etc., during epidemics

when sulphur fumigations were relied on for prophylaxis, appear to have established the efficiency of this mode of disinfection. Dr. E. R. SQUIBB, of Brooklyn, in a recent paper on "Disinfection by Burning Sulphur," remarks that, "The chemical changes which result from burning sulphur in dry air do not yield sulphurous acid, but sulphur dioxide," which, he says, "is not disinfectant." "There should be moisture, either with the sulphur dioxide, or with the infected matter, or with both." The necessary amount of watery vapor to combine with the inactive dioxide of sulphur in order to render the latter a powerful disinfectant can easily be obtained by evaporating a considerable quantity in the room that is to be fumigated.

Book Notices.

MEDICAL AND SURGICAL MONOGRAPHS. Vol. III. No. 3. September, 1889. Wm. Wood & Co., Publishers, N. Y. 8vo; pp. 290. Price, $1.00.

The number before us contains: Congestive Neuræsthenia, by E. G. WHITTLE; The Art of Embalming, by BENJ. WARD RICHARDSON; Etiology, Diagnosis, and Treatment of Tuberculosis, by H. VON ZIEMSSEN; Psycho-Therapeutics and Hypnotism, by C. LLOYD TUCKEY; Sexual Activity and the Critical Period in Man and Woman, by LOUIS DE SERE.

The paper on Embalming offers material of considerable interest, though of no marked value; and the same may be said of that devoted to Psycho-Therapeutics. The essay on Tuberculosis has long been before the public as a separate volume, by another publisher, though it would appear upon the faces that both were from the hand of the same translator. SERE's "Sexual Activity" offers nothing new, and is suggestive rather than practical, and it is a pity the subject were not more generally and thoroughly elaborated, as a good monograph upon this subject, one that is wholly devoid of the prurient and sensational, is needed.

ANNUAL OF THE UNIVERSAL MEDICAL SCIENCES FOR 1889; by Prof. Chas. E. Sajous. F. A. Davis, Publisher, Philadelphia. 5 vols. Cloth, 8vo. Price $3 per vol.

The scope, and possibly the intention, of this work, is large—too large for complete fulfillment. It is, however, impossible in these days of medical knowledge and extensive professional literature, to do justice to all that may seem desirable to be mentioned. The task is one few men would care to undertake, and we doubt not the work has been done conscientiously by the numerous sub-editors; indeed, this is evidenced by the list of collaborators, which includes such men as COHEN, SEGUIN, LOOMIS, LEIDY, SMITH, WILSON, DAVIS, HUN, MINOT, AGNEW, SENN, DRAPER, GIHON, DUNGLISON, MANTON, *et al.* As a work of reference, to authors especially, it is of value, more so than to the practitioner, and not the least of its valuable features is the well arranged reference index.

ORIGINAL INVESTIGATIONS OF CATTLE DISEASES IN NEBRASKA By Frank S. Billings, M. D., D. V. S. State Journal Company, Lincoln, Nebraska. 8vo; pp. 270.

This interesting volume, emanating from the Patho-Biological Laboratory of the State University of Nebraska, is composed of Bulletins 7, 8, 9 and 10, issued during the years 1886, '87, and '88. The subjects treated of are: The Southern Cattle Plague and its Relations to Yellow Fever; The Corn-Stalk Disease in Cattle; So-Called Hydrophobia in Cattle; Contagious Inflammation of the Cornea in Cattle, and; Singular Diseases of the Sexual Organs in Cows.

The work is illustrated with nine handsomely colored plates; and there is a comprehensive index. It is well worthy of perusal as a whole, and a valuable addition to comparative pathological literature.

ESSENTIALS OF MATERIA MEDICA AND THERAPEUTICS. By Henry Morris, M. D. Philadelphia; W. B. Saunders & Co. Cloth, 12mo: pp. 250. Price $1.00.

This is number seven of "Saunder's Quiz Compends," and is of the class of books that in the main are pernicious, tending to the acquirement of apparent rather than real information. Undoubtedly, however, such volumes have a place, and serve a purpose in aiding the illiterate, the idle, the careless, and the superficial, to meet the requirement of examination. There are always a number striving to enter every profession, to whom these "crams" are almost invaluable, but such literature in no way aids in the diffusion of knowledge, or the elevation of the standard of education, but quite the reverse.

THE NERVO-VASCULAR SYSTEM. By W. Henry Price and S Potts Eagleton. Philadelphia: F. A. Davis, Publisher. 19x24 inches. Price 50 cts.

This is a series of charts of the nerves, arteries and veins of the human body, giving names, origins, distributions, and functions, very convenient as memorizers and reminders. A similar series, prepared by the late J. H. ARMSBY, of Albany, N. Y., and framed, long found a place in the study of the writer, and on more than one occasion was the means of saving precious moments that must otherwise have been devoted to tumbling the pages of anatomical works. The greatest drawback to such charts, however, is their necessarily limited scope, hence in the main they are better calculated for the student than the practitioner or author.

Notes and News.

Case of Popliteal Aneurysm Cured by Compression in Eight Hours.—Edward S., æt. 49, admitted to Meath Hospital on February 20th, 1880. The patient had served fourteen years in the army, four as a canteen sergeant while in India. He consequently passed a great deal of his time standing. At the time of admission he was a warder in the military prison. He had always been healthy, with the exception of mild intermittent fever in India; was a temperate man, and never had venereal disease.

In November, 1879, he strained the back of his left knee in lifting a heavy block of timber. Subsequently the limb appeared to be not so active as formerly, but he noticed no swelling till January 21st, 1880. From that time the tumor grew until it attained the size of a turkey's egg. He suffered very little pain except when standing.

On admission he was ordered the following mixture:

℞ Ext. ergot liq., ʒ iij.
Acid gallic, ʒ jss.
Spt. chlorof., ʒ ij.
Aq. ad. ℥ viij.

M. ℥ j three times a day.

On 23rd the radical cure was commenced by the application of Read's tourniquet over the femoral at Poupart's ligament in the groin, and Signoroni's at the apex of Scarpa's triangle, the limb being previously swathed with flannel. Pulsation ceased in the tumor in six hours. The patient was carefully watched and when complaining of much pain, liq. morphia was administered. The limb felt very numb for a few hours, but gradually the numbness diminished. Perfect quiet was observed all day. At 10:45 that night the tourniquets were removed altogether, and the tumor was found to be quite consolidated. The patient was kept in bed and given moderate non-stimulating diet until March 10th, and was discharged on 13th, the tumor never having shown any signs of pulsation.

In his treatment, Mr. Ormsby's laid great stress on the point that when compression was adopted two tourniquets should be employed at a short distance apart, so as to enforce two points of pressure on the artery, and these points of pressure should be employed alternately, and relaxed alternately, when the patient complained of pain. In this way continuous obstruction to the blood stream through the aneurysm could be carried out. Another point in the treatment is to carry out compression in the day and, if not successful, remove all appliances and allow the patient to have an uninterrupted night's sleep, and then begin the compression afresh the next morning if necessary.—*Med. Press and Circular*, Sept. 4, 1889.

Our Meat and Drink.—

So it has come to this, that men
Must dine no more on flesh again,
The chances being nine to ten—
Tuberculosis.
The thought's enough to there and then
Cause cyanosis.

I wonder what *is* safe to eat!
Swine seems as bad as butcher's meat,
For porcine flesh they say's the seat
Of trichinosis,
And even tea, that household treat,
Brings on neurosis.

They are all tabooed—well let them go!
What though it brings my system low,
And fond friends cry in tones of woe,
"He has got chlorosis?"
Impoverished blood is less a foe
Than scrofulosis.

Farwell, my modest evening tea!
Microbic flesh depart from me!
Seductive beer it may not be!
Who wants cirrhosis?
E'en sugar's not suspicion free,
There's teeth necrosis.

No more the cherished hope I'll hug
That all this cry is mere humbug;
Henceforth I'll feed on "flesh that's dug."
If plants have "oses,"
I'll swill some antiseptic drug
In treble doses.

Hospital Gazette (London).

Nasal Bougies for Use in Hay Fever, etc.—Having been so unfortunate as to have a severe case of hay fever in my own household, I have been led to make experiments upon nasal bougies, and think that the results are worthy of a brief note as to the best material for bougies and the best method of using them. Gelatin has been tried in a number of forms and combinations but without success. The bougies made of it, when fresh have not sufficient stiffness to be inserted into a partly occluded passage, although in a few days they become so hard and horny that they are distinctly irritating. On the other hand, as a basis, cocoa-butter seems to be free from objection. Although a little skill is required in preparing the bougies when cocoa-butter is used alone, yet the employment of wax is altogether objectionable. The cocoa-butter I find to be entirely free from irritating properties, and to melt rapidly in the nostril. In my own hands, the bougies failed to give relief, because, when inserted, they fell back into the nasal passages going towards the mouth. If, however, the patient be lying down, and the bougie be pushed forcibly upward, so as to jam itself between the two sides of the upper nostrils closed by the swelling of the erectile tissue, it will be held firmly in place, and in a couple of minutes melts. After the insertion of the bougie, the patient should still continue to lie

down, with a pledget of absorbent cotton that has been wet with cocaine pushed up the nostril, so as to prevent the melting cocoa-butter from running over the lip. The only medicine which I have found of service in hay-fever is cocaine, which, however, seems to act better when added to a little atropine. Each bougie may be made to contain one grain of the hydrochlorate of cocaine and $\frac{1}{120}$ grain of atropine.—(DR. H. C. WOOD, Philadelphia, in the *Therapeutic Gazette.*)

Honors to Edison.—The "Wizard of Menlo Park" has been the recipient of no end of honors, and of adulation (that, spoken to or of, almost any other living man, would seem the grossest flattery), almost every waking moment since his feet first touched French soil. That he knows how to capture the heart of the average "immortal" and return sugar stick for taffy, was illustrated at the meeting of the Academié des Sciences held in his honor. After the florid greetings of the Academicians, EDISON, through an interpreter, told how much he admired and honored the Academie, how he had its *Comptes Rendus* read and translated to him every week. Noting AMPERE'S bust facing him in the hall, he told how much he would have enjoyed hearing him speak; and skillfully turning this point to immediate effect, he declared that the voices of the present Academicians should at least not be lost to the world. Would the learned body accept one of his phonographs with multiple cylinders? (Would a duck swim?) Hereafter their voices should be embalmed for future generations. This was surely enough to raise the dry bones of even Academic immortality, but the climax was reached when EDISON wound up by declaring that "hereafter he proposed to send all his scientific communications to the Academié, for which he felt the highest regard." —Well, if any man now on earth, or that has ever been on it, has earned the right to patronize the Academié, it is THOMAS ALVAH EDISON. —*National Druggist*, Sept. 15, 1889.

Brain Surgery.—Dr. EDMOND SOUCHON, of New Orleans, has demonstrated by experiments on dogs a useful and, as it seems, a safe method of exploration of the brain for the purpose of locating pus cavities. To obviate the necessity of removing a large button of bone, as is usually done by means of the ordinary trephine, he employs a watchmaker's drill, which makes an opening just large enough to admit a needle with a calibre about twice the size of an ordinary hypodermic syringe. This method permits one to make several tentative punctures with the infliction of comparatively little injury. In his experiments he made use of dogs, in which he found that four such operations of trephining and puncture, in a single animal, were unattended by noticeable effects. After the results of the first operations were obliterated, the animals were kept at rest for two weeks, when the same operations were repeated, with similar results—no remote effects whatever being witnessed.—*Jour. Amer. Med. Association*, Sept. 7, 1889.

Cinchonism and Means of Preventing it.—Dr. Coglitore, in the London Medical Recorder of August 20th, after enumerating the principal symptoms of poisoning by quinine, says that in cases of toxæmia no good is obtained from various other remedies employed as substitutes for quinine (arsenic, salicin, eucalyptus, etc.). He finds that quinine is always well borne if given with ergotin and opium. This is his formula:

℞ Sulphate of quinine, grs. xij,
Bonjean's ergotin, grs. v,
Opium, gr. j.—M.

Make into three powders, and give at intervals of one hour.

Given in this manner, quinine succeeds in the gravest cases, and gives rise to no symptoms of cinchonism.

Therapeutic Brevities.

Goitre Treated Successfully with Strophanthus.—Up to the present date I have treated sucessfully five cases of goitre without a single failure.

Miss Anna C——, aged 22, called on me Dec. 10th, 1888, suffering from "big neck," as she called it. Various remedies (such as ergot, bromides, and digitalis were given internally, and injections of carbolic acid and ergotin were made into the gland) were tried without any appreciable results. At last I prescribed strophanthus for her in ten-drop doses three times a day. At the time she commenced taking strophanthus her neck measured fourteen inches. In ten days it measured thirteen inches, and in three weeks twelve inches. The strophanthus was given in ten-drop doses three times a day for one week, and then increased to twelve drops three times a day, and finally up to sixteen drops three times a day. The enlargement subsided very rapidly, and in two months she declared herself well, and to all appearances she was cured. The only unpleasant features about the treatment in all cases that I have treated is the profound dizziness and faintness.

Miss Jennie R——, aged 16, called on me Jan. 8th, 1889, with an immense goitre. It measured thirteen and one-half inches. She was put upon the tincture of strophanthus, and her recovery was as prompt and satisfactory as the first case reported. She was discharged cured, March 15th.

The other cases were similar to those, and the recovery equally rapid.

My attention was first attracted to the value of strophanthus in goitre in a most singular manner. Last December Mrs. R—— sent for me to treat her for some heart trouble. She

was short of breath, suffered from palpitation, and had a very bad capillary circulation. She informed me that digitalis acted like a poison to her. She also showed me her goitre, an enormous one, and said that her former physician had given her ergot and digitalis for it, without any effect, save to make her deathly sick. She needed a heart tonic, and I prescribed it for her in big doses (10 drops every four hours). I left her and saw no more of her for three weeks or more. When she did show up she was much improved, and the most astonishing part of all was, her neck was, decidedly smaller. Her breathing was good and she felt much better, and she was greatly relieved, but never cured, for the simple reason she would not take it any longer.—S. T. Yount, M. D., in *Medical Waif*.

Creasote.—Formulæ for the Administration of.—Dr. Keferstein (Therap. Monatsch.) gives some very good formulas for the administration of creasote. The one at first recommended by Dr. Bouchardat, and later on by Dr. Frantzel, has been modified by the author as follows:

℞ Creasote gr. xx;
Alcohol ʒ vj;
Cinnamon water ʒ iij;
Cinnamon syrup ʒ vj.

M. One teaspoonful three times daily.

For the pill-form the following is recommended:

℞ Creasote, gr. lx;
Powdered marshmallow root,
Purified liquorice, ää ʒ jss;
Mucilage of gum arabic, q. s.

M. Div. pill. No. cxx. Coat with gelatin. Sig. One pill three times daily.

In irritative cough and diarrhœa the following is administered:

℞ Creasote, gr. xxx;
Acetate of lead,
Opium (pure) ää gr. v.;
Extract of liquorice. ʒ jss;
Mucilage of gum arabic, q. s.

M. Div. pill. No. 50. Sig. One pill three times daily.

For children, creasote in the form of the following emulsion seems best adapted:

℞ Creasote, gr. xx.
Dissolve in almond oil, ʒ j;
Gum arabic, ʒ v;
Water, ʒ iij.

M. Make an emulsion and add

Comp. tinct. of orange peel, gtt. xv.;
Oil sugar of peppermint, ʒ j.

M. One teaspoonful two to five times daily.

For drop doses the author uses the following:

℞ Creasote, gr. xlv;
Tincture of cinnamon, ʒ j.

M. Fifty drops three times daily in a half a cup of warmed milk or warmed sweetened water, or Malaga wine, etc.—*Deutsche Med. Wochens.*

Hypodermic Use of Morphia—The Initial Dose.—Great diversity of opinion exists as to what constitutes a safe initial dose in a person unaccustomed to its use. This should not exceed for an adult female one-eighth grain, for an adult male one-sixth grain. I have myself seen death follow upon the injection of one-quarter grain in an adult male, and Ringer says a "a larger quantity than one-sixth grain sometimes produces serious consequences." There are, I think, two reasons for the large quantities given. (1) The maximum officinal dose of half a grain is much too high. This is evident, when we consider that the maximum hypodermic dose, and that for administration by the mouth, is fixed at the same quantity, namely, half a grain. All authorities are, I believe, agreed that morphia injected hypodermically is at least twice as potent as morphia given by the mouth. The maximum hypodermic dose ought therefore to have been fixed at one-quarter grain instead of half a grain, and we have, I am afraid, the British Pharmacopœia to thank for many fatal results that have occurred. (2) Many of the younger members of the profession have taken their standard of an ordinary dose from the quantities they were ordered, when clerks or dressers, to inject during the time they were in hospital. They forget that the majority of these patients were suffering from incurable disease.—*Braithwaite's Retrospect*, July, 1889.

Suppositories for Endometritis.—Terrier, in the Revue Thér. Méd.-Chirurg., August 1:

℞ Powdered iodoform, ʒ ijss,
Tragacanth, grs. viij,
Glycerin }
Distilled water } q. s.—M.

For ten suppositories.

These suppositories should be made in the form of crayons, about the size of a nitrate of silver point, such as is used for cauterizing. Resorcin or salol may be used in place of iodoform in the formula, the same quantity being admissible. If, however, bichloride is preferred, the formula should be altered as follows:

℞ Sublimate of mercury, grs. viij,
Powdered chalk, ʒ vjss,
Tragacanth, xxiv,
Glycerin, }
Water, } q. s.—M.

For 50 suppositories.

These suppositories should be placed in the cavity of the uterus after the vagina has been thoroughly washed and disinfected with sublimate solution. A tampon of iodoform gauze may be placed in the vagina.

Hydro-Therapeutics for Dyspepsia.—Dr. C. Kevin, in a paper read before the Ulster Medical Society, says he has tried about a dozen cases of painful dyspepsia with what is called the "hot pad" and "binder." It is made up of three parts—a pad (four-ply of swansdown) about twelve inches by six inches; a roller two yards long, half swansdown and the other half mackintosh cloth; and one and one-half yards of a flannel binder. The pad is put into boil-

ing water and wrung out. It is then put over the abdomen at bedtime, covered with the cotton and waterproof binder; and over all the flannel binder is placed. In the morning all is removed, the abdomen is sponged with cold water and rubbed with a rough towel, the flannel binder is then put on and worn throughout the day. Where much pain is complained of, the whole apparatus may be worn constantly. He thinks the beneficial effects are due to the fact that more blood is brought to the parts requiring it; spasm is relieved, and support is given to the abdominal muscles. He finds in cases where he has ordered it that it relieves flatulency, pain, constipation, and distension. It is also useful in insomnia, and cleans the tongue when it is coated.—*Dub. Journ. of Medical Sciences—The Practitioner.*

Treatment of Chronic Catarrh of the Bladder.—Dr. L. Frey, in the Centralbl. für Chirurg. of August 17th, claims that iodoform is especially suited for the treatment of chronic catarrh of the bladder, on account of its antiseptic, analgesic, and deodorizing properties.

The bladder should first be cleansed by a douche of warm water, and then a tablespoonful of the following, in a pint of warm water, injected into it:

℞ Iodoform, 50 parts,
Glycerin, 40 parts,
Distilled water, 10 parts,
Tragacanth, ¼ part.—M.

These injections should be repeated every third day. Three or four will usually effect a complete cure.

Dr. Mosetig-Moorhof has treated twenty-three cases in this way, all of which were cured. No symptoms of intoxication from the drug were observed.

Cheken.—Bronchial affections are as unsatisfactory a class of diseases to treat as any with which the physician has to contend, especially chronic bronchitis, and "winter cough," persisting every succeeding winter and resisting every remedial agent. In these conditions the above new remedy promises excellent things. It has cured a great many severe cases alone, and relieved others. It never fails to give some relief, and the cough is nearly always mitigated by its use. It is useful in the cough of chronic pleuritis and pneumonitis. It is of no marked value in the cough of phthisis. A half dram of the fluid extract is about the proper sized dose, given every three or four hours, but two or three times as much is sometimes necessary in stubborn cases.—*Chicago Med. Times.*

Jaborandi in Rigidity of the Os Uteri.—Jaborandi was first suggested for rigidity of the os uteri in labor by Dr. J. Hardcastle but has never been very largely used. Quite recently Dr. N. P. Moss has tested its action in this condition and reports his success in the New Orleans Med. and Surg. Journ. The *green* fluid extract only is said to be active and reliable, and may be obtained from Parke, Davis & Co., of Detroit, Mich. A dose of 30 minims of the fluid extract is often ample to relax an obstinate and unyielding os, but if no effect is obtained in thirty minutes, the dose may be repeated. Not more than three doses of thirty minims should be administered. If the uterine contractions are weak and inefficient, moderate dose of quinine or ergot may be given simultaneously.—*Ther. Analyst*, Sept. '89.

Saw Palmetto.—We published an item on this agent, and having received requests for fuller suggestions, will say that the remedy is prepared by Parke, Davis & Co. in the form of a fluid extract, of which form one-half to one drachm may be given three or more times daily, according to the indication. The direct action of the agent is upon the prostate gland, which it quickly restores in many cases to a normal condition. It is of great value either in enlargement or atrophy of the gland. It overcomes wasting of the testes and improves the sexual powers, relieving difficult, painful, or weak micturation quickly. It is undoubtedly a valuable agent, and we hope our readers will report the results of its extended use.—*Chicago Med. Times.*

Arrack in Diphtheria.—Dr. Rouge, in the Deutsche Med. Wochenschr., No. 29, strongly advocates the use of arrack in diphtheria. The local treatment consists merely in washing the mouth with lime-water. The dose of the liquor varies from a half-teaspoonful to one tablespoonful every two hours, according to the age of the patient. Dr. Rouge's intention is always to give a sufficient quantity so that a slight intoxication will be observable at the end of each day. Fever does not contraindicate the use of the liquor. Rouge reports forty successful cases treated in this manner. The duration of the disease was also considerably shortened, being on an average only eight days.

Bicarbonate of Soda and Milk.—Hitherto it has been deemed permissable to add soda bicarbonate to milk to assist in its preservation, but now the Council of Hygiene of the Seine has condemned the practice as one of danger. The transformation of milk sugar into lactic acid, in milk so adulterated, gives rise to a lactate of soda which is purgative, and frequently a source of almost uncontrollable diarrhœa in infants. Consequently the Council in its Bulletin decides that: "Soda shall no longer be permitted in milk, which is an ailment of the first order, and very often prescribed for invalids and children."

Diphtheria—Its Treatment by Menthol.—Cholewa (Thérap. Monatshefte) reports most favorable results from the application of plugs of cotton wet with a twenty per cent. oily solution of menthol to the nose, in cases of nasal diphtheria. In cases in which syringing of the nose had been impossible on account of its being entirely filled with membrane, this method seemed rapidly to remove the membrane and to bring the diphtheritic process to a standstill.—*Braithwaite's Retrospect*, July, 1889.

A New Cardiac Remedy.—A new alkaloid has recently been discovered in the common gorse, "whin," or furze, of Europe (*Ulex Europæa*) termed ulexine, and of most powerful

character. It appears to arrest all voluntary movements and reflexes by paralyzing the motor tract of the spinal cord and the trunks of the motor nerves. The heart muscle is paralyzed, though preliminary thereto there is an increase of arterial pressure. Further, it possesses a diuretic action similar to that of caffeine, but more definitely marked.

Medical Progress.

THE CLIMATIC TREATMENT OF BRONCHIAL ASTHMA.—Frederick I. Knight, M. D., in the Philadelphia Medical News, Sept. 7, 1889, thus discusses the etiology, and climatic treatment of bronchial asthma.

I should agree to the combination given by Dr. Bosworth as applying to a large class of cases, including most of the hay-fever cases. This combination was: 1. The neurotic habit. 2. A diseased condition of the nasal mucous membrane. 3. Some peculiar atmospheric condition, which precipitates the paroxysm;—*i. e.*, we have a predisposing, a determining, and an exciting cause. In order, however, to make this applicable to asthma in general, I should consider it necessary to make the second and third conditions more comprehensive. The second might be stated as a morbid condition somewhere in the respiratory tract, it may be in the upper air-passages or in the lungs themselves, whose irritation shows itself by a reflex exhibition in the bronchial tubes. The third condition should be made to include not only peculiar atmospheric states, but also digestive derangement, mental disturbances, and other remote irritations which act by reflex on the bronchial tubes.

It should always be borne in mind also that we may have more than one of the conditions mentioned under the second and third classes operative at once. For instance, we may have nasal disease and some change in the lung structure coöperating in the same patient, and also more than one of the exciting causes operative at the same time. This should lead us to be guarded in prognosis, and not to be too confident of cure because we have detected a single factor which is capable of removal. Who has not seen asthma persist after removal of nasal polypi, or after removal of a patient from a pollen-laden air which seems to be the exciting cause of the attack?

In regard to the coëxistence of different factors for the production of bronchial asthma it may probably be said that only the second and third are absolutely necessary, and that while the first (the neurotic habit) is a pretty constant factor, a paroxysm may be produced without it when the determining cause (second factor) is situated in the lung itself. In considering the effect of climate upon the paroxysm it can readily be seen that its effect upon each of the factors should be studied separately; and, if either factor can be eliminated or seriously modified by climatic change, then the attacks will cease.

It thus becomes more explicable why entirely different climates relieve different cases of asthma, or even the same case at different times. Who has not seen a patient completely relieved by change of climate for a number of years, perhaps, and afterward, the symptoms returning, be again relieved by another move, perhaps even back to the starting-point? Now, in such case it is very likely that the patient, while strengthened in one factor, was gradually weakened in another till the paroxysm was again developed, to be again prevented by variation of influence.

When, therefore, a case of bronchial asthma presents itself to us, and we are called upon to break the "vicious combination," we try to determine which of the essential factors is most easily removed or modified.

The third factor (the existing cause) is the one which is apt to engage the attention first, and it may be oftentimes easily removed. When the exciting cause is atmospheric, it may be some variation in the proper constitution of the air, or it may be the presence of accidental emanation, as the pollen of plants, the odor of animals, or animal or vegetable products. When the latter condition obtains and is once recognized, the patient may be able to keep himself out of the reach of the excitant, and, as is well known, an army of hay-fever subjects keep themselves well in this way by an annual exodus to exempt districts.

The well-known susceptibility of asthmatics to paroxysms in the country, as compared to the city, may likewise sometimes depend upon the presence of vegetable or animal emanations in the country air. In other cases it seems to be the atmosphere containing the most carbonic acid which affords the most relief; hence, the old, crowded portions of the city are looked upon by certain asthmatics as the abodes of bliss. This accords with the recent reports of cases of "dyspnœa" relieved by inhalations of carbonic acid gas.

A change in the density of the air sometimes affords marked relief. It is well known that removal to a high altitude relieves certain cases. These may be such as have for a determining cause some morbid condition of the bronchial area, in which a slight superficial hyperæmia and relative internal anæmia may relieve the paroxysm, and the variation in pressure at different altitudes may be enough to determine this. Instances of digestive derangement and nervous disturbance as exciting causes of asthmatic attacks,are too well known to need illustration. I once had a gentleman patient, recently married, who almost always had an attack on sexual intercourse. I had another patient who could stop an attack by gambling for high stakes.

In regard to the possibility of so modifying the second factor (a morbid condition somewhere in the respiratory tract, which may be called the determining cause) that the combination shall fail, it may be said that this is sometimes easy and sometimes impossible. When the lesion is accessible to operation, as in the nose, this may be easy; when it is below the reach of operative methods, it may be very difficult or impossible. Perhaps the most brilliant results in the latter field are seen in the cures wrought by the potassium iodide. This remedy is especially efficacious in those cases in which there is evidently a catarrhal inflammation of the bronchial mucous membrane. These cases are also quite susceptible to a proper change of climate—*i. e.*, such a change as we have reason to believe would benefit the bronchial or pulmonary lesion. As

to the possibility of so modifying the first factor as to prevent the attacks, I should say that while we may sometimes be successful in warding off the paroxysm by fortifying the nervous system with good hygiene and specific tonics, we will be less successful in this mode of attack than in either of the others. So, also, we may occasionally, in cases in which the neurotic factor is a prominent one, succeed in so modifying it by change of residence as to effect a cure in this way.

So it will appear that in climatic, as in medical, treatment we must make our application to the ascertained condition of the patient, as far as it is possible to diagnosticate this, and not to the name of a disease. There is no climate which is good for all cases of asthma, and we must carefully consider, when a patient presents himself for treatment, the nature of these three factors in his case, and which of them we intend to modify, and how far change of climate may be able to aid us in this.

THE TREATMENT OF INSOMNIA.—In his concluding remarks in his paper on this subject (read in the Society of Internal Medicine), Jastrowitz, of Berlin, considers the following remedial applications:

Alcohol may be employed in the form of beer, wine, cognac, etc., and it may be used, especially, in cases where the other soporific remedies would occasion considerable weakness of the heart. In patients subject to chronic insomnia, alcohol should only be used in the light forms of psychical excitement; thus a few glasses of beer may be given at bedtime. Alcohol should be avoided in hypemania and hypochondria, because it increases the morning depression common in these cases.

Opium and morphine. I regard the alkaloids as the true soporifics, contrary to the general sentiments, which regards them as simply calming remedies. In spite of the useful action which antipyrin, phenacetin, etc., exert in pain, we cannot ignore the claims of morphine, which has also a tonic action. Thus sportsmen employ it to stimulate themselves, and inject it into their horses to increase their resistance to fatigue. The tonic action of morphine explains its use in the different states of morbid terror, and in the insomnia of anæmic subjects. It must be cautiously administered in bronchitis, pneumonia, and heart disease. In chronic insomnia it is contraindicated, for the morphine habit is much more difficult to combat than that of chloral, paraldehyde, and sulphonal. In certain forms of insomnia—in the senile form, in those which depend upon an intestinal affection, and in chronic hypemania—opium acts better than morphine. Narceine in doses of 0.1 to 0.15 centigrams is a good soporific. Codeine in the same doses sometimes produces convulsions.

Chloral, is unquestionably the most powerful soporific, but in large doses it lowers blood pressure considerably and paralyses the heart. Chloral is our best remedy in delirium tremens and epilepsy. According to Liebreich, it is contraindicated in diseases of the heart, and hysteria. In my opinion it is contraindicated in cases where there is considerable adhesion of the lungs, as well as in those cases where, after a dose of 4 grains, we do not find that excitement which is manifested in part by contraction of the pupils. In cases where it is active in small doses, chloral may be employed to as good advantage in chronic insomnia as in the acute form. It is well to add a little morphine to the dose, for by retarding the elimination of the chloral it reuders the action of the latter more permanent.

Paroldehyde does not weaken the heart, but when employed for a long time it manifests its close relation to alcohol by a chronic intoxication analagous to the grave forms of delirium tremens. Because of its disagreeable taste and elimination by the lungs, paraldehyde is contraindicated in bronchitis and dyspepsia. It is indicated in hysteria because its taste *is* disagreeable), and in icterus accompanied with pruritus. It has also been recommended in cardiac stenosis, and rejected in dilatation of the right heart and arterio-sclerosis. Paraldehyde acts very well in insomnia from emotional causes, and in epileptic excitement, but its action is less favorable in the four conditions of psychical excitation and morbid fear.

Hydrate of amyl is a good soporific, free from all danger. It sometimes exerts a bad influence on the stomach, however, and it is then necessary to give it by injection. It has been recommended in typhoid fever, in heart disease, as a remedy for cough (when paraldehyde is contraindicated), and as a soothing remedy in cholelithiasis.

Sulphonal enjoys the great advantage of being tasteless and inodorous, which allows its administration without the knowledge of recalcitrant patients. It exerts no influence upon the heart. In acute diseases its action is not sufficiently rapid, and it has no influence upon pain. It is, however, an excellent remedy in the insomnia of motor origin, as, for example, in chorea and all forms of mania. I administer it often in small sedative doses during the day, and at evening give a large soporific dose. The prolonged use of sulphonal produces a peculiar condition of weakness in the limbs, but unaccompanied by real ataxia. For this reason it is necessary to discontinue its use from time to time.

As regards the inconvenience, danger, and intensity of their soporific action, the remedies of which I have spoken may be classified according to the following series. As regards their inconvenience and danger: morphine, chloral, hydrate of amyl, paraldehyde, sulphonal. As regards their efficacy: chloral, sulphonal, hydrate of amyl, paraldehyde, morphine.

Thus we see that *sulphonal* is the least dangerous of all, while at the same time it occupies the second place as regards soporific action.—*Gaz. Méd. de Liège.*

SHEPHERD'S PURSE.—This common plant, which is a native of Southern Europe, Northern Africa, Northern America, the tropical regions of Asia, and has been gradually introduced into almost all temperate climes, is one of the most abundant weeds to be found in England. It is a low herb, varying in size from six to ten or twelve inches, with very small white flowers and lobed leaves, which are arranged in tufts or rosettes. The botanical title is *Capsella Bursa Pastoris*. It belongs to the N.O. *Cruciferæ*, sub-order *Notorrhizeæ*, tribe *Lepidineæ*, family *Capsella*

Lewis ("Experimental History") thus describes it: "A plant with small tetra-petalous whitish flowers along the upper part of the branches, followed each by a triangular seed-vessel resembling a purse, whence its name; the lower leaves are for the most part deeply jagged, like those of dandelion, and widen from the bottom forwards; those on the stocks are entire, and most of them broadest at the bottom, with a little ear on each side at the juncture with the stock. It is annual, common in waste grounds, and flowers from April to the end of summer. It is a low herb, varying in height from six to twelve inches. The leaves are arranged in a tuft or rosette; the flowers are white and very small."

The herb when fresh has an unpleasant smell, which is lost in drying. It yields on distillation a volatile oil, which is identical with oil of mustard, and has been used as an antiscorbutic, also in hæmaturia and other hæmorrhages, as well, as in dropsy (H. C. Wood).

The freshly-pressed juice has been given in doses of from two to four ounces. The seeds are described as "acrid, detersive, and astringent" (Gray).

Recently Dr. K. E. Wagner used a tincture made from the capsules as a styptic in menorrhagia, hæmoptysis, and epistaxis, with the greatest success; the hæmorrhage being either entirely arrested, or at least very greatly diminished. No unpleasant effects, such as headache or dyspnœa, were observed, even when three tablespoonsful of the tincture were taken in the course of twenty-four hours, the usual dose being from four to six teaspoonsful.

The plant was formerly credited with many virtues, and was prominently noticed in the early English Herbaria, as the following quotation from the Master of the Rolls' reprint shows: "This wort (shepherd's purse), which is named ὑλάσπι, and by another name wild thyme, hath small leaves of a finger's length, and parted, and inclining downwards towards the earth, and it hath a thin and long stalk, and it hath in the upper part of it purple blossoms, and the seed is produced throughout all the stalk. All this wort is strongish and bitterish by nature; the ooze of this wort well wrung out, and a cup full drunk, by the common necessary evacuations and by spewing, forces out all the bitterness which cometh of the gall.

"This same wort removes all the evil gathering of the inwards, and it also likewise provokes *τὰ τῶν γυναικῶν καταμήνια*."

The herb, however, gradually fell into disfavor, and in 1768 Lewis wrote of it "An extract made from the dry leaves by water is somewhat ungratefully mucilaginous and subsaline; an extract made by rectified spirit has somewhat more of an unpleasant, though weak taste. No pungency or astringency could be perceived either in the leaves themselves or in the extracts, nor did a decoction of them strike any degree of blackness with solution of chalybeate vitriol. There does not appear, therefore, to be any foundation for the strong styptic virtues, for which the herb has been recommended by writers on materia medica."

About twenty years later a popular text-book on materia medica describes shepherd's purse as "an herb that, notwithstanding the virtues which have been ascribed to it, seems almost merely herbaceous."

A reference to its hæmostatic powers occurs in Neale (456-6). The plant is so common that there should be little difficulty in definitely determining its therapeutic value. Those who are acquainted with "Resources of the Southern Fields and Forests" of Francis Peyre Porcher, know how useful the knowledge of even the wild plants of a country may become.

Gentlemen practicing in the country could, without much trouble or inconvenience to themselves, do much to glean reliable information concerning our common plants, and rescue some useful remedies from the odium to which old wives tales have condemned them. The fact that a herb is a wayside weed should not make the profession reluctant to investigate its disputed claims to recognition as a useful therapeutic agent.—George Foy, F. R. C. S., in *Med. Press and Circular*, Sept. 4.

TREATMENT OF RETENTION OF URINE FROM PROSTATIC ENLARGEMENT.—In the Medical Section of the last meeting of the British Medical Association, reported in the British Medical Journal of August 24th, Mr. A. F. McGill opened a discussion upon the treatment of retention of urine from prostatic enlargement. He advocated the following propositions: (1) That prostatic enlargements which give rise to urinary symptoms are intra-vesical, and not rectal. (2) That retention is caused by a valve-like action of the intra-vesical prostate, the urethral orifice being closed more or less completely by the contraction of the bladder on its contents. (3) That in many cases self-catheterization is the only treatment required. (4) That when the catheter treatment fails, or is unavailable, more radical measures are necessary. (5) That this treatment, to be effectual, should (*a*) for a time thoroughly drain the bladder, and (*b*) permanently remove the cause of the obstruction. (6) That these two indications are best fulfilled by a supra-pubic rather than by a urethral or perineal operation. The supra-pubic operation is preferable (*a*) because it is more generally applicable, (*b*) because it can be performed with greater precision and completed with greater certainty, (*c*) because it insures complete and most efficient drainage, (*d*) because it is equally safe. Of ten patients upon whom the speaker had operated, eight had continued well, only one having required the passage of a catheter, and that only after excessive drinking. In one case, owing to the extreme hardness of the prostate, the operation was unsatisfactorily completed; in another there was temporary relief, with death at the end of ten months.

Mr. Edward Atkinson said he had performed supra-pubic prostatectomy in five cases. Of these, one had died, and the remaining four were well—had good control over the bladder, did not require to micturate more than six to ten times in twenty-four hours, and were enjoying fair comfort.

Mr. Reginald Harrison referred briefly to some cases of advanced prostatic obstruction which he had treated by perineal prostatotomy, which he thought was specially applicable to those instances where obstruction was the prominent and most distressing symptom. He concluded his observations by a reference to the importance of the early treatment of prostatic enlargement by mechanical means.

Mr. Bruce Clarke stated that the obstruction

was due mainly to two causes: (1) the growth of the prostate into the urethra, and (2) into the bladder; and both of these must be relieved. He had had eleven prostatic cases under his care, in which some form of operation was required. So far his plan of treatment had been to make perineal incision first, and examine the bladder; if necessary, incise the floor of the prostate; then one could ascertain exactly what needed to be done, and perform a suprapubic operation afterward, if necessary. He had done this in two cases with the best results.

Dr. Ward Cousins said he had performed two operations for prostatic retention and calculus. Both cases were old men laboring under intense suffering. He enucleated some masses around the neck of the bladder, which proved to be cancerous. Both cases were for a time relieved. He thought Mr. McGill's operation would be the method practiced in the future for cases in which catheterization was impossible from pain and mechanical difficulty. The essential treatment consisted in the timely use of the catheter.

Mr. Macewen wished to say that after hearing Mr. McGill's paper, seeing his patients in the Leeds Infirmary, and the specimens, he had upon this evidence become a convert to the supra pubic removal of the prostate, as it removed the pathological cause of the difficulty; and he would put the operation in practice on the earliest suitable opportunity.

Mr. Bennett May agreed that it is the intravesical growth which causes the obstruction and retention, and further, when retention is complete and permanent, that it is collar enlargement, with partial retention, but great irritability, from a pedunculated middle lobe. He believed that for drainage the supra-pubic is inferior to perineal cystotomy, but he regarded formal removal of any portion of the prostate by the perineal route as an impracticable proceeding in most cases.

CONTRIBUTION TO THE STUDY OF THE INFLUENCE OF ALCOHOL ON PEPSIN.—SUBSTANCES ANTAGONISTIC TO PEPSIN.—In a recent memoir, Dr. Henri de Nesslern reviews the current views respecting the influence of alcoholic preparations on pepsin, and especially the authoritative statements of Vulpain, based on the researches of his pupil Mourrut. It will be remembered that Vulpian condemned all the vinous or spirituous combinations of pepsin as inert and valueless, while Portes took a different view, affirming that it is only concentrated alcoholic solutions that have a damaging action on pepsin.

The questions considered by Nesslern are the following:

1. Is pepsin soluble in alcohol and the aqueous solutions of alcohol?

2. Does alcohol, even when considerably diluted, materially alter the properties of pepsin?

The results obtained are summed up in the following conclusions:

1. The differences of opinion on the reciprocal action of alcohol and pepsin are due to the fact that the products employed were defective.

2. A pepsin that will stand the test should not only dissolve, but peptonize albumen and fibrine.

3. Good pepsin still preserves its digestive power in twenty per cent. alcoholic solutions.

4 Pepsin is completely altered in its properties by seventy per cent. alcoholic solutions.

5. As far as the wines and elixirs of pepsin are concerned, it is not by their alcohol that they render pepsin inactive, but probably by the tannin which they contain: and in the fabrication of such preparations, wines which contain little tannin should be chosen. For the *wine of pepsin* of the French Codex, Lunel wine is selected, as being most free from tannin

According to Barbet, sugar does not impair the action of pepsin, and most of the salts are compatible with it. The presence of chloride of sodium diminishes its action, while this is enhanced by the salivary and pancreatic diastases, by liquors in process of alcoholic acetic and lactic fermentation, by sauer-kraut, old cheese, etc. Lactic acid was pronounced *eupeptic* by Magendie, Claude Bernard, and Schiff, and recommended especially as a medicine by Handfield Jones. Hydrochloric acid, associated with pepsin, was a favorite remedial agent with Trousseau.

Among the substances antagonistic to pepsin should be mentioned the alkalies and alkaline bases, when in any considerable excess, as well as all metallic salts capable of precipitating it from its aqueous solution.—*Boston Med and Surg. Jour.*

HAVE WE ANY REMEDIAL AGENTS THAT MAY BE RELIED UPON TO CURE CANCER?—Dr. Griswold Comstock discusses this question in the N. Y. Med. Times, and after mentioning the relief that sometime follows the use of some remedies, such as hoang nan in connection with the arsenic treatment, gives the palm to the cautery treatment.

He mentions the following remedies that may be useful for local application: Resorcin, beechwood creasote, pyrogallic acid, carbolic acid, and Fowler's solution. We have seen them all do good in special cases of this affection, and it is with no little confidence, that we wish to single out resorcin, and pyrogallic acid, as being especially worthy of trial. As for thuja occidentalis, it is especially valuable in cases of senile gangrene, when used locally, and keeps down the intolerable fetor better than anything that we have ever before found. It is indeed well-named—"tree of life."

The article of Dr. Parsons, from a recent number of the British Medical Journal, is quoted to show the value of electricity in cancer. Dr. Parsons recommends in cancer, the use of a powerful interrupted voltaic current from a battery of 105 volts. The patient is at first anæsthetized, and a current passed through the tumor and all the tissues around it, by means of fine, insulated needles, so as not to injure the skin. He says the theory is, that "in cancer, the normal tissue cells have escaped from the inhibitory control of the nervous system, and have proliferated and formed new tissues, which being devoid of nerves, but having vascular supply, and roused by some local stimulus degenerate into cancerous growths. Healthy cells possess a power of recovery from injury which cancerous cells lack,

hence, if an agent of great intensity could be for a very short time locally applied, the cancer cells might be injured beyond recovery, while the normal cells would regain their former condition of health, with the result of arrest of growth of the cancer cells and shrinkage of the tumor." Dr. Parsons, in the above article, mentions four cases of cancer treated by such intense currents of electricity—at first ten milliamperes in strength and gradually increased up to six hundred milliamperes—and he reports favorable and very encouraging results from such treatment. Dr. Comstock concludes his review of the subject as follows: In our experience we have found that the platinum point of Paquelin's thermo-cautery at a glowing heat, is more practical, and can be better and easier managed than intense electric currents sent through insulated needles, or by galvano-caustic applications which are now so much recommended.

On the Treatment of Lung Tubercu losis with Creasote.—Prof. Sommerbrodt, of Breslau, reports in the July number of the "Therapeutische Monatshette" on the favorable results obtained with creasote—of course only with the initial stage and with large doses—and alludes to the harmless character of large and steady doses. Since 1887, with many hundred tuberculous patients, he has administered his creasote capsules (each 0.05) in such a manner that the patient receives thrice daily one capsule, then adding one capsule daily until after the eighteenth day; thus, thrice seven capsules (hence 1 gr. per day) are administered through many months. Prof. Sommerbrodt reports the case of an officer suffering from pronounced tuberculosis who, from Sept. 1st, 1888 to June 1889, took altogether 5,400 capsules containing 270 gr. creasote, and who has been completely cured. At times Prof. S. administered three times nine capsules without causing any unpleasant disturbances.

Summarizing his extensive experience Prof. S. comes to the following conclusions:

"We must seek," says the author, "to administer for many months one gr. of creasote per day (eventually reaching 1.35 gr. and more), and this may be achieved in most cases if the preparation be good, and the capsules or drops of wine of creasote are not taken on an empty stomach, but immediately after meals. The better a patient feels immediately after administration, the more persistent must this treatment be continued. I trust the many initial affections (catarrh of the apex and slight infiltrations) may be treated with all possible promptness with large doses of creasote; the good results of this treatment would then be much more striking than they are even now. In cases of advanced disease, little is to be expected.—*Pharm. Post*, page 603, Aug. 25th, 1889.

Incontinence of Urine in Children.—Dr. Descroizilles says that incontinence of urine in children, although frequently of nervous origin, also often accompanies constitutional weakness, and that the strict application of hygienic and dietetic principles will frequently effect complete cure. He has tried various remedies, and states that he has found certain formulæ, of which the following are modifications, to be most efficacious:

℞ Extract of belladonna, 6 grains,
Powdered gum arabic,
Powdered marshmallow,
Of each sufficient quantity.

M.—Make into forty pills. One to fifteen to be taken daily, according to the severity of the case.

℞ Syrup of belladonna, 2 fl. oz.
Syrup of tolu,
Syrup of marshmallow,
Of each 1 fl. oz.

M.—A half teaspoonful two to eight times a day.

℞ Atropine, ½ grain,
White sugar, 3 drachms.

M.—Make into forty powders. Two to four to be taken daily.

℞ Bromide of potassium, 1½ drachms,
Cinnamon water, 2 fl. oz.
Syrup,
Syrup of bitter orange peel,
Of each 1 fl. oz.

M.—A half teaspoonful one to four times a day.

℞ Sulphate of strychnine, 2 grains.
Syrup 6 fl. oz.,
Water, 2 fl. dr.

M.—A half teaspoonful one to twenty times a day.

Bromide of potassium is also useful in four-grain doses, given one to four times a day.—*Med. and Surg. Reporter*, Aug. 31.

The Surgical Treatment of Inveterate Tic Douloureux.—The author reports three cases of violent neuralgia of the trigeminus, in which he successfully operated by a modification of Carnochan's method. Carnochan operated as follows:

A V-incision was first made below the eye, and from its apex a straight cut was extended downward through the entire cheek and lip half way between the nose and the corner of the mouth. The nerve ends were then gathered up at the foramen of exit, and a trephine applied to the front of the jaw, removing the front bone wall of the antrum. The roof of this cavity, being of thin bone, is readily broken in and the nerve drawn down from the orbital cavity. The back wall of the antrum is next broken away and removed, which exposes the spheno-maxillary fossa, which at this point is little more than half an inch deep. The nerve can now be cleaned away from its cellular surroundings and traced to the foramen rotundum, which is on a line with the

inner wall of the antrum. Here it is readily cut square off. The posterior dental nerves and Meckel's ganglion connect in front of this, and thus all communication of the jaw with the nerve centers is cut off beyond the chance of repair.

The simplifying of dressings and attainment of primary union in the wounds now possible, make certain valuable modifications of the operation practicable, which Dr. Abbe has adopted. The best point is the small skin incision, which leaves a small scar. One inch and a quarter, either horrizontally, vertically, or obliquely, over the infra-orbital foramen, gives ample room for operating. He has found a gouge better than a trephine for penetrating the antrum, front and back. A narrow, forked, blunt instrument to straddle the nerve and assist in dragging it down into the antrum saves it from laceration.

No bleeding occurs that is not readily checked by sponge-pressure, even the sharp welling-up that occurs when the nerve and its companion vessel are cut. The dressing of the wound is of special importance, and the most perfect result is obtained by packing iodoform gauze lightly into the antrum, the end of a long strip being folded into a small pad to be placed deep in the wound against the foramen rotundum, and the rest lightly added on top, and allowed to keep the wound apart on the cheek. After thirty-six or forty eight hours this gauze is entirely removed and the wound sutured with care.—*International Journal of Surgery*, Sept, 1889.

A NEW DISCOVERY.—The successful disposition of sewage is the question of all-absorbing interest in nearly every large city in the world. Nowhere, perhaps, has there been a greater need, nor has the subject received more able and critical study than in the city of London. Up to the date of last month the royal commission on metropolitan sewage discharge have been unable to report any feasible plan for the purification of sewage by precipitation.

A Mr. Wollheim, of London, now claims to have discovered a method by which this result may be successfully accomplished. He utilizes certain organic bases belonging to the group of ammonia compounds in combination with lime. As the result of chemical reactions, a gaseous reagent is evolved to which he gives the name of "amminol." It is a powerful disinfectant and, as stated in the London Times, when introduced into sewage rapidly extirpates all microörganisms capable of causing putrefaction or disease. When thoroughly intermixed with sewage the effect is almost instantaneous, the putrid odor of the sewage being at once replaced by that of the reagent. In thirty minutes the liquid portion of the sewage can be discharged deodorized and sterilized with perfect safety.

According to reports made by Dr. Klein, F. R. S., the disinfection as well as the deodorizing is complete. He states that a sample of sewage examined by him contained 2,400,000 organisms in a cubic centimetre, and that the affluent after treatment was free from all or any organisms. Dr. Klein suggests that the effects of the treatment on specific microörganisms, such as bacillus anthracis, the cholera comma bacillus, the typhoid bacillus, the pneumonia bacillus, should be ascertained. We shall watch with special interest for the verification of Dr. Klein's experiments. If this new discovery can be utilized successfully it may prove to be one of the most important achievements of the present age. And if its germicidal power can be utilized in the destruction of the microbes producing specific diseases, its value may be beyond any possible estimate. Its claim to our confidence will be absolute when this is fully verified.—*Journ. Amer. Med. Association.*

ETIOLOGY AND TREATMENT OF TETANUS.—In the Journal de Medecine de Paris appears a report by M. Guelpa on receut investigations of the Etiology and Treatment of Strabismus. Guelpa states his conclusions from the study of the subject to be as follows:

1. Tetanus is an infectious malady.

2. There is no such thing as rheumatismal tetanus in the true sense of the word.

3. Although the horse is one of the most susceptible animals to the malady, it is certain that tetanus is not of equine origin, Verneuil to the contrary notwithstanding. It would be much more proper to attribute it to microbic origin, the microbe being found in the earth.

4. The symptoms of tetanus are not due to the microbes, but to the toxic substances generated by them.

5. At least, during the first manifestations of tetanus, the multiplication of the microbe is limited to the place of entrance. In only six per cent. of cases do we find the organism all through the body.

6. While opposing the nervous theory of tetanus, it is nevertheless true that the nervous system has a particularly marked susceptibility to react to the ptomaines produced by the organism.

7. From a therapeutic point of view, there are three essential objects to be attained.

a. The destruction of the nidus of development of the bacilli.

b. The elimination from the system of the products of the bacilli.

c. The sedation of the nervous system.

To destroy the bacilli in their nidus, deep excoriations are made, and the place washed with five to ten per cent. of sublimate, or cauterized with nitric or sulphuric acid. He recommends elimination by purgatives and diaphoretics.

The sedation of the nervous system is accomplished by sedatives and, above all, absolute quiet.*

Note well the danger of eating flesh of animals dead of tetanus.

JABORANDI AS A PARTURIFACIENT.—Under this caption Dr. N. P. Moss reports a few cases (N. O. Med. and Surg. Journ.) in which jaborandi seemed to expedite labor, and his explanation of the *modus operandi* of the drug is unsatisfactory, as he seems to attribute it

[* Dr. S. L. Abbot, in an article in a recent number of the Boston Med and Surg Journal, cites a case of tetanus entirely relieved by the use of urethan.—Ed.]

merely to its diaphoretic properties. His cases are also not numerous enough to serve as a basis for accurate deductions. Pilocarpine has been proven beyond doubt to possess a powerful action upon the uterus, and it has been employed to a considerable extent as an abortifacient. Professor Schauta, of Prague, has employed pilocarpine in more than forty cases as a means of strengthening labor pains. Injected subcutaneously he has found it active in two-per-cent. solution, although he has also used it in three- or four-per-cent. solutions. Schauta went so far as to measure the effects of his doses by means of the manometer, and reached the conclusion that the influence of pilocarpine upon the uterus is a very powerful one, although it varies greatly according to individual susceptibility. In 1881, Van der Mey made experiments upon pregnant rabbits from which he obtained similar results. Gigollet has reported the case of a woman in whom premature labor was twice induced by the administration of pilocarpine, three injections at intervals of four hours having proved sufficient. Prof. Schauta gives the following rules for the administration of pilocarpine: After careful examination of the organs of respiration and circulation, I would administer on the first day, if necessary, as many as three injections of a two-per-cent. solution. If by the second day no contractions had supervened, I would use not more than two injections of a three-per-cent. solution; and finally, on the third day one or two injections of a four-per-cent. solution, employing always the muriate of pilocarpine. If I obtained no action by the fifth day, I would resort to other measures. It would be absurd to abandon the use of muriate of pilocarpine, which has proved itself such an excellent ecbolic remedy in some cases, simply because it has not been found active in all cases when used in a two-per cent. solution.—*Journ. Amer. Med. Association*,

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Hyperidrosis of the Feet.—This affection, though apparently trivial, gives rise to great discomfort to the affected individual as well as to those who are in immediate contact with him, and not infrequently it has proved to needy persons an obstacle to obtaining employment.

Many years ago, Hebra taught that the emplast. diachyli was a specific for this ailment. But this remedy has not borne ont the author's views, for since his time numerous washes and powders have been brought forward, and today a quack remedy is advertised in the German medical journals as a "liquid anti-hidroticus."

The Germans seem at last to have discovered a valuable remedy in solution of chromic acid. Though inclined to a therapeutic inhibition, the German physicians now and then bring forward statistical evidences of the results of treatment whose large and carefully gathered data disarm skepticism at once. In the Prussian Army the sweating of feet has become a great nuisance, to whose abatement the medical staff has long devoted its best energies with more or less success. Recent reports to the Medical Department of the War Office, present the results of the application of a 5- to 10-per-cent. solution of chromic acid in 18,000 cases. A complete cure was effected in 42 per cent.; an improvement in 50 per cent.; and in 8 per cent. failure is recorded.

A large proportion of the Army surgeons regard the solution of chromic acid as the most rapidly acting and effective remedy; others regard it as at least equal to the salicylic preparation. The marching capacity of men suffering from sweating feet was considerably increased.

The remedy is easily applied; it is cheap and cleanly; it is harmless if precaution is taken to heal abrasions or wounds before applying it, and if the latter is done by the physician or under his supervision The feet should be thoroughly bathed and dried before retiring; the soles and interspaces between the toes should be penciled with a brush several times in succession, and in eight or ten days the painting should be repeated.—*Times and Register*, Sept. 14, 1889.

Notes on Exalgin.—At a meeting of the French Academy of Sciences, 18, 1889, Drs. Dujardin-Beaumetz and G. Bardet, presented a report upon the physiological and therapeutic action of orthomethylacetanilid (Gazette des Hôpitaux, April, 1889), a derivative of benzin, to which the name exalgin was given by Brigonet, the chemist who prepared it. It is very soluble in water containing a little alcohol, somewhat so in warm water, but only slightly in cold water. They found it to act very energetically upon the cerebro-spinal axis in animals, giving rise to phenomena of impulsion, tremor, and paralysis of the respiratory muscles. In non-toxic doses sensibility to pain disappeared, but that to touch existed; and a gradual but notable fall of temperature took place. Compared to antipyrin, there is a considerable similarity, but the effect of exalgin upon sensibility is more marked, and upon the thermogenic centres less marked, than that of the former. In therapeutic use exalgin gave rise to no rash, cyanosis, or gastro-intestinal irritation, such as have been noted in the employment of antipyrin and acetanilid; in one case only was there slight erythema. They treated all forms of neuralgia with the new remedy, doses of twenty-five to forty centigrammes being required for the analgesic effects. The drug is eliminated by the urine. It modifies the urinary secretion, and in diabetic polyuria diminishes the daily amount of urine and the quantity of sugar. Compared to antipyrin, it seems to produce greater effects as an analgesic in half the doses, according to these authors. It has also to some degree antiseptic properties.

I have been testing the efficacy of the drug on private patients, and on patients at the Polyclinic and Vanderbilt clinics, as appropriate cases presented themselves, during the last seven weeks. I have used it in the form of pills containing two grains each, and in the form of a cordial, each tablespoonful of which was equivalent to two and one-half grains of the drug.—Frederick Peterson, M. D., in *N. Y. Med. Record*.

The Medical Age.

Vol. VII. DETROIT, OCT. 10, 1889. No. 19.

Original Articles.

GONORRHŒA.

BY G. FRANK LYDSTON, M. D., CHICAGO.*

Gonorrhœa, or urethritis, as it is properly termed, is a very old and respectable disease. It has been known since the time of the patriarch MOSES, and from all historical accounts, his people were peculiarly subject to it, although it must be confessed that the modern Hebrews are less frequently affected than almost any other race. It consists of an inflammation affecting the urethra of the male, or the genitalia of the female, and until within a recent period was supposed to be due, invariably, to contagion by uncleanly intercourse, and consequently, under all circumstances, specific. We now know, however, that it is not, of necessity a specific disease, but one which may arise from a variety of causes; that it is dangerous, in fact, in a large number of instances, to apply the term *specific;* and that if we pronounce every case which comes under our care, a "clap," we are apt to involve ourselves in an endless amount of trouble. It is easy to do an innocent person irreparable injury and injustice through a careless diagnosis of gonorrhœa. For example, I have met married men affected with urethral discharge, who contracted the disease, beyond a doubt, from their wives, and if they had been told without due caution and consideration that they had "clap," it would undoubtedly have led to much misery. The fact that any discharge in the female, whether physiological or pathological, may produce urethritis, should always lead us to be cautious in the matter of diagnosis.

Now, there are two forms of urethritis, described, viz., *simple*, and *specific* or *virulent*, the disease in general being the most frequent of those contracted during sexual intercourse. I do not like this classification, however, because there is essentially no difference between the two forms. I do not like the term *specific*, as applied in the sense that the disease always results from contagion by sexual intercourse with a female suffering from virulent vaginitis, or that the poison is always the same in intensity and in results. Better to classify as *venereal* and *non-venereal*, when if deserved we may subdivide as *virulent* and *non-virulent*. We meet with non-virulent urethritis which from various causes becomes virulent in character, and we also see cases of venereal which remain simple or non-virulent throughout their entire course. Permit me to explain my meaning when I employ the term "specific" in connection with this disease.

I do not believe that the ordinary acceptation of the term is correct as applied to gonorrhœa, but that in all such cases there exists a co-relation between them, whether they be simple or virulent in character, and that (with the exception of the traumatic and chemical forms), all originate by inoculation with the decomposing products of simple inflammation, or uncleanly secretions. The now generally accepted explanation of the origin of the virus of gonorrhœa is, that it develops *de novo* in the female from the decomposition of leucorrhœal or menstrual discharges, and in the male by intercourse with uncleanly, but not necessarily diseased, prostitutes. As a consequence of heat and moisture, which constitute a favorable environment for such decomposition, especially in women, we have developed a highly irritating secretion, or if further advanced, a highly virulent form of contagion.

Now, any simple inflammation through the medium of a favorable environment, may, by a process of evolution, develop the poison of so-called "specific inflammation"—(*specific, in the sense that when the decomposed products of a primary simple inflammation of a mucous surface, are transferred to a healthy mucous membrane, there will be produced an inflammation in the healthy soil precisely like that from which the irritating or infecting materials were derived*). If we take the products of specific inflammation, and make successive cultures upon healthy soil, after a time is obtained the virus attenuated, and as a result we have a material capable of exciting merely simple inflammation, and finally, material which is absolutely non-irritating. There is, therefore, a co-relation between the simple and specific causes of inflammation of mucous membranes, so that after a certain length of time, by a process of evolution which controls the development of bacteria quite as much as it does the development of higher forms of life, we have developed from the products of a

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simple mucous inflammation, an infectious form of poison, (or bacteria, if you choose,) which, when transferred to a new and favorable locality, will develop an inflammation precisely like that from which the infectious material was derived. This will explain why, we sometimes encounter individuals who have contracted different degrees of disease by intercourse with the same woman, while others who have been similarly exposed, have escaped altogether. There must be some explanation for this, for if each of these individuals—leaving out the question of individual susceptibility—has had intercourse with a woman who is suffering from a virulent gonorrhœa, there should be no difference in the character of the disease contracted; there must consequently have been some inflammatory condition existing in the female which gave rise to products varying in virulent properties, *pari passu* with the severity of the case and the stage of decomposition. At one time in the history of the vaginitis,—or filthy condition of the vagina, as the case may be,—the secretions were probably not very acrid, but they became so through decomposition—*i. e.*, the evolution of bacteria or cocci, and finally constituted a virulent form of poison, the intensity of which varied according to the degree of development of the bacteria; hence, having these inflammatory changes in the female, one individual is liable to contract from her a mild attack of urethritis, while another may escape it entirely; and later on in the history of the vaginal trouble, some unlucky individual will be likely to contract a virulent gonorrhœa. Unquestionably the development of the bacteria has all to do with the degree of virulence of the vaginal discharges, and successive cultures of the bacteria will necessarily vary in intensity according to their environment.

There is another disease affecting the mucous surface which bears me out in assuming the evolutionary origin of the specific cause of virulent urethritis,—I refer to purulent ophthalmia. If you are familiar with the history of this disease you know that it may develop *de novo* among children in crowded asylums, among soldiers in camps, or in filthy penal institutions; also under circumstances in which there is no possibility of infection by contact. As far as pathological appearances go, there is very little, if any, difference between severe purulent ophthalmia and a virulent type of gonorrhœal ophthalmia or conjunctivitis; *it is impossible to differentiate them from appearances alone.* Some surgeons claim they can do so, but I must confess I have never been able so to do, though having met a goodly number of cases, and have studied them carefully and conscientiously. The results of ocular infection by the genuine gonorrhœal virus, by the secretion of the severe forms of purulent ophthalmia, and by the secretion of the form of inflammation of the eye in which the gonorrhœal origin has been traced, are alike; and the secretion of any of these forms of conjunctivitis will produce gonorrhœa if inoculated upon the urethra. It takes but a few hours for a virulent conjunctivitis to destroy the sight, for the cornea is supplied at its periphery by nutritive material from the blood-vessels of the conjunctiva and sclerotic, and not very well nourished; hence, when there is severe congestion of conjunctiva, the cornea is apt to break down (not having blood-vessels of its own), its vitality being of low grade.—There is constant pressure from the interior of the eye, and when the cornea softens, it ruptures, and we have its protrusion in the form known as staphyloma. This may result even in *simple purulent ophthalmia.* It is also unquestionably true that all purulent ophthalmias depend upon bacterial infection, and even in mild cases where the condition has persisted until it became more or less chronic, a single child afflicted therewith, if introduced among other children, will cause an endemic of the disease. Thus a single case in a public institution will very often infect in varying degrees all children congregated therein.—The more crowded the institution, and the more sickly the children, the worse the resulting infection will become. So too, a single case of ophthalmia in a crowded barrack is prone to affect a large number of soldiers. The history of epidemics of this disease show they occur in the same way, and from the same causes, as a great many other contagious diseases,—poor food, cold and wet, overcrowding, bad health, and filth, in combination with simple inflammation. With these circumstances of environment, secretions from the eyes of individuals affected by simple inflammation, may finally develope the poison of this disease; in other words, we have among these people types of ophthalmia varying from that which is destructive and inevitably fatal to the eye, to the mild catarrhal form of conjunctivitis, all being due to the spontaneous evolution or development of purulent ophthalmia. I recall in this connection a very sad illustration of the close association of gonorrhœa and purulent ophthalmia. A young man of 18 contracted a gonorrhœa, and in his ignorance was careless enough to inoculate his eyes, with the result of total loss of sight. A little boy of seven who slept with him, also contracted the ophthalmia, becoming totally blind.

There has been a bacterial organism, the *gonoccocus*, described by NEISSER as existing in specific ophthalmia and urethritis, and claimed to be characteristic of gonorrhœa. My own experience does not lead me to consider it as a sign of positive value, and I am by no means alone in this belief; I fail to see that

it is pathognomonic of gonorrhœal inflammation, and its presence or absence is of no great importance in diagnosis, for it will be found in some cases, and in others precisely similar will be absent—it may be found in one of several cases, the origin of which is definitely known, while in the others, deriving the disease from the same precise source, it cannot be detected. Bacterial organisms are unquestionably at the bottom of all cases of virulent infection, yet their constancy of form may be doubted; they are probably the lineal descendants of those innocuous germs which exist all about us, that are present in the atmosphere, and the source of decomposition of discharges in wounds. We find that discharges from the vagina are peculiarly prone to decomposition, as the circumstances of heat, moisture, and imperfect ventilation, conditions prevalent in the vagina, constitute an environment favorable to the development of bacteria. By successive cultures of bacteria primarily innocuous, there is finally evolved bacterial organisms which are very virulent, and which will under almost all circumstances produce in a healthy mucous membrane the so-called "specific" inflammation. It is probable that there exists the same relations between certain cases of urethritis that prevail between some forms of sore throat and diphtheria: there are probably several contagious diseases in which there is a spontaneous development of the poison or special materies morbi. Dr. De Gorrequer Griffith (London, England) has clearly demonstrated the relations between simple bacteria in the atmosphere, and the bacteria of a virulent character which give rise to specific disease; and he traces the relation of scarlatina to the simple exanthematous diseases, the relation of sore throat to diphtheria, and the mild enteric fever to the severe typhoid, in the same manner. He believes the difference between these forms of disease is attributable to changes that occur in simple bacteria during the process of evolution. The bacteria that develop in filthy sewers take on changes that result in qualities characterized by a greater degree of virulency than that possessed by their progenitors which exist in the outer world, and when transplanted to a new location, again develop by procreation a new and slightly modified bacterial form, and this product is still more virulent. Thus, by successive cultures, we finally have an organism which, if introduced into the human system, will result in one of the so called specific diseases. Diphtheria, scarlet fever, typhoid fever, and typhus fever, are probably spontaneously generated in this way—at least, the theory of the evolution of germs is the only logical one concerning the origin of the virus of infectious diseases. However, this argument unfortunately, does not hold good in all cases, for we find many cases developing spontaneously in the most unheard-of situations, and with no intermediate types. I do not wish to be understood as accepting the theory of spontaneous generation, but I do believe that we have developed spontaneously certain new properties in pre-existing germs, and it is only by the acceptation of this theory that we are at all able to understand the origin of infectious diseases. It was originally supposed that typhus fever depended upon some environment favorable to the development of the specific poison of the disease; that it must always be introduced as a specific poison, and could not be developed *de novo;* that whenever we had an epidemic of typhus, it was infallible evidence infection had been carried to that particular locality. We had an epidemic of typhus fever in New York in 1881, and at first supposed it to be due to the arrival of Irish emigrants, but afterwards it was conclusively shown that it developed spontaneously from local causes. We may at any time have an epidemic of typhus fever in any locality, providing the environment is favorable to development; it may be developed in camps and jails, without the contagion necessarily having been carried to the particular locality affected. The spontaneous generation or gradual evolution of the *materies morbi* of infectious diseases, then, is an important thing to remember. Let us carry the argument a little further in the case of gonorrhœa.

I believe with Bumstead and Taylor that chancroid and gonorrhœa are related more or less closely, the same also being true of the former, and of simple or herpetic ulcerations. I have seen cases of herpes develop upon the penis in the male, and the vulva of the female, where there was no possibility of infection, which were precisely like the soft venereal ulcer; that is, the parts would become inflamed and take on changes that would make it absolutely impossible to distinguish the lesions from the milder cases of chancroid. If we even take the products produced by a typical chancroidal ulceration and transfer them to a healthy surface in a cleanly individual, we may have only a slight ulcer resulting. A chancroid in the urethra will produce urethritis in addition to the localized ulceration. If we take gonorrhœal virus and inoculate it upon a healthy and cleanly surface, an irritation or inflammation is set up. If we transfer it to a cachectic individual, we are apt to have more or less suppurative inflammation, and perhaps sloughing. If we transfer from this latter individual and inoculate upon the external organs of the female, we may have developed a typical chancroid. Thus we may have all grades of inflammation and ulceration, beginning with the simple herpetic ulceration, or gonorrhœal inflammation, and culminating in severe chancroid, the latter varying with the systemic and

local conditions involved. We note certain characteristics presented by a typical case of virulent urethritis as compared with the simple form. The discharge is more profuse; there is a greater degree of inflammation; there is more pain; there may be extreme chordee from inflammatory exudate and swelling; there is more or less blood in the discharge, and it is greenish, thick and nasty-looking. These are differences of degree, not differences of kind, and do not necessarily imply any specificity in any particular case of urethral inflammation. A simple case may at any time become virulent in character as a result of cold and wet, traumatism, dissipation or sexual indulgence.

Regarding the causes of simple or non-venereal urethritis, *i. e.*, these cases not necessarily dependent upon exposure during intercourse: Such diathetic conditions as rheumatism, struma, and gout, play an important rôle in these cases, and patients thus peculiarly constituted are more prone to urethritis than other individuals, especially if the canal has been previously damaged. In persons who are constitutionally healthy, we may meet with urethritis due to certain chemical causes; for instances, the employment of strong injections. A great many individuals take injections immediately after coitus to prevent a possible gonorrhœa, and as a consequence, a violent grade of urethritis is sometimes set up which is purely chemical in character, but which cannot be readily differentiated from cases due to contagion. If we pass an instrument into a canal that is affected by stricture or congested patches, we are quite apt to aggravate the existing inflammation, and have a simple traumatic urethritis as a consequence of interference, so that in some instances we will be unable to pass the instrument again until the inflammation has subsided. Certain drugs taken internally, such as turpentine, cantharides, etc., may give rise to a condition known as strangury, which is an inflammation of the neck of the bladder and urethra, and we note in such cases a more or less scanty secretion of urine; the patient may only pass a few drops at a time; urination is very painful; and the urine is to a greater or less degree mixed with blood. The reflex irritation produced by prolonged sexual excitement may likewise give rise to urethritis, particularly in patients of a gouty or rheumatic diathesis, who live high and drink to excess, but will never do so if the canal is perfectly healthy; we are very apt to notice it, however, if the canal is more or less damaged by stricture or patches of congestion.

A young man came to me complaining of a urethral discharge. He said that he had been married only about two weeks; had nothing to do with women for five or six months previous to marriage, but that prior to that time he indulged in sexual intercourse quite frequently had several attacks of gonorrhœa a year or two before. About a week after marriage he discovered what seemed to be a severe "clap," and his friends referred him to me, thinking that such was really the case As a consequence of his abstinence for five or six months he had become sexually very hungry; he was very passionate, and after marriage indulged excessively, and the congestion thereby induced, superadded to the morbid condition left by his old gonorrhœa, resulted in an acute inflammation; in short, as a result of excessive coitus with a lame urethra, he was suffering from acute simple urethritis. On examination I found two or three strictures in the pendulous portion of the canal, and it was the irritation and obstruction produced by them, together with the excessive sexual indulgence, that produced the urethritis.

This is but a single illustration of a large class of cases with which one is apt to meet in the treatment of diseases of the genito-urinary system. There are other cases that occur something like this:

A married man with a urethritis, and retention of urine, came to me a few days since. It so happened that I knew something of his family history, for I had treated his wife for leucorrhœa and uterine truble; on this account I might, perhaps, have supposed that the patient came by his trouble honestly. It is a peculiar fact, however, that a man who cohabits regularly with a woman with uterine disease, becomes acclimated, so to speak, and has no difficulty, although another individual might have intercourse with the same woman and contract urethritis. I therefore did not believe in the family origin of this particular case. On inquiry, I found that my patient had had a peculiar experience; he had been troubled by a stricture for some time, and had noticed that it would take him quite a while to make water, his wife having often asked him why he took so long in urinating. He was otherwise perfectly well, and performed his sexual functions in a most perfunctory manner; there was no inducement to excessive indulgence. He happened, however, to run across a former mistress (a married woman), and had intercourse with her several times; and within forty-eight hours developed an apparently typical case of "clap" with retention of urine. His was a case that undoubtedly did not result from infection, for I examined both his wife and mistress, and found them alike healthy as far as specific disease was concerned. The explanation was, that he had become acclimated at home, and there being no novelty in the situation, did not excite himself unduly, but on having sexual intercourse with his mistress, overdid, and thereby contracted a urethritis, and the inflammation constituting this urethritis, super

added to the obstruction already existing, closed the stricture up completely.

From what has already been said, it may readily be perceived that the condition of the urethra has much to do with the causation of urethritis. Very simple causes may, in combination with pre-existing morbid conditions of the canal, cause inflammation. Whenever, a patient claims to have contracted a urethritis independently of contagion, we are justified in giving him the benefit of the doubt, and when the inflammation has decreased, we must also seek for organic changes in the canal. It is said by some that there are undoubted cases of rheumatic urethritis; that patients of a rheumatic or gouty diathesis develop simple urethritis from exposure, independently of intercourse. I do not believe, however, that if a urethra is healthy at the time of the contraction of a cold, a person is apt to have urethritis, no matter how rheumatic he may be. Exposure to cold and wet, and excesses in drinking, eating, and sexual intercourse, on the part of a person of gouty or rheumatic diathesis, are very apt cause a urethritis, but always providing the canal be unhealthy from previous attacks. Some cases of urethritis are traumatic,—for example, we can cause the disease by rough instrumentation; in almost every case of chronic gleet or stricture, unless careful in introducing instruments, one is liable to set up a urethritis from the traumatism produced by the exploration. This should be borne in mind, else it may be suspected that the patient has a fresh attack of urethritis from infection. Again, we sometimes have urethral discharges in syphilis that may be mistaken for the ordinary form of urethritis. This is due to the development of a tubercle or syphilitic mucous patch upon the mucous membrane of the urethra, the lesions being the same as those developed in the mouth. Chancre or chancroid developing in the urethra, will also produce urethritis. The lesions of syphilis are due to the accumulation of hyperplastic material within the meshes of the healthy tissue, and these accumulations present appearances that differ with the location. Of course, a syphilitic papule upon the mucous membrane of the mouth will not present the same appearance it does upon the skin, but the pathological condition is the same as that which goes on in syphilitic lesions upon any of the surfaces of the body; thus we may have a tubercle, a papule, or a macule, upon any of the mucous membranes; we may have condylomata, or small ulcerations which are the result of inflammation of the mucous patch, or there may exist only a slight infiltration, presenting to inspection merely a little grayish opaque spot. The pathological condition is the same in all cases. When any of these lesions appear upon the mucous membrane of the urethra, we have an attendant urethritis.

The principal point in connection with the cause of urethritis is: Any irritating discharge, leucorrhœal or menstrual, from the uterus or vagina, especially when combined with uncleanliness, may produce the disease. A severe cervical endometritis, which really lies at the bottom of the majority of cases of leucorrhœa, is very apt to produce it. Unless this is remembered, one is apt to make frequent and lamentable mistakes in diagnosis, and may find himself brought into disagreeable prominence in the divorce court. The fact that a woman has not vaginitis, does not prove that she is incapable of communicating urethritis, for the discharge from the uterus may be very acrid and irritating without necessarily causing vaganitis; in any event, the mucous membrane lining the vagina is very tough and resisting, especially as compared with the delicate mucous membrane lining the male urethra, and the same discharge which the female vagina tolerates may produce urethritis in the male. In some women, virulent vaginitis may result in a chronic infectious inflammation high up about the neck of the uterus, the inflammation tending to localize itself at that point, particularly in that portion of the vaginal vault posterior to the neck of the womb, and the rest of the vagina may be comparatively healthy. In such cases, one is not apt to discover the trouble by superficial examination. In this infectious nest, protected from air and light, bacteria can go on developing until they become so virulent that, by and bye, through sexual intercourse, somebody gets a warm reception. Sometimes, two apparently healthy people, through excessive indulgences, may set up a first-class attack of urethritis or vaginitis. I remember an instance in illustration: A man and woman consulted me, one after the other, and each accused the other of having communicated the "clap," each claiming to have been perfectly healthy before intercourse. On investigation, I found that after a very hearty supper, and a good deal of champagne, they retired and had intercourse five or six times during the night, the man taking an injection in the morning as a prophylactic against gonorrhœa; the result was that they both had an apparently typical case of "clap." The probabilities are, that neither of these patients had the disease prior to their excessive sexual indulgence. The woman may not have been especially cleanly, and probably had leucorrhœa, and as a result of excessive eating and drinking, together with immoderate sexual intercourse, an inflammation was set up in each of the participants. A case of this kind might be pronounced by almost anybody as "specific" inflammation, but I fail to recognize the specificity. Recall

RICORD'S famous formula for catching a clap: "Take a blonde woman with leucorrhœa, wine her and dine her, have intercourse with her five or six times during the night, take a prophylactic injection in the morning, and in two or three days a beautiful 'clap' will develop."

There is something peculiar in the fact that individual susceptibility modifies gonorrhœa to a great extent. There are some individuals who seem to be fire-proof, so to speak, and who claim that no matter how careless they are, they never have a gonorrhœa. This probably results not from any intrinsic resisting power to infection, but from the fact that the mucous membranes of some urethras are very tough; they cannot be inoculated with bacteria, nor can such urethras be inflamed by any irritating secretion.

FOURNIER has collected some statistics regarding the class of women who are most apt to cause gonorrhœa, which are decidedly interesting. He finds the most dangerous are the kept mistresses and actresses; next, shop girls and married women; lastly, prostitutes. It is well known that the better class of prostitutes are less likely to cause gonorrhœa than the class of women who are clandestinely loose, and this holds true in this country as well as in Paris. As a matter of fact, careful observation proves that the better class of prostitutes are not very likely to give gonorrhœa. There is not a cleaner creature on the face of the earth than a high-toned prostitute, for the class of men who patronize are not apt to have intercourse with them while suffering with urethritis, hence they are not apt to contract gonorrhœa by contagion. These women are very careful of their persons, and remarkably clean; almost invariably they wash themselves after intercourse to prevent infection, as well (in their opinion) as to sustain general health; for similiar reasons, these (the better class) women are not likely to communicate a chancroid, which is another filth disease. If a man gets anything at all from the better class of prostitutes, it is most apt to be syphilis, the reason for which is obvious: A woman with chancroid or vaginitis is more or less incapacitated from continuing her vocation for the time being, on account of the great discomfort attendant upon sexual intercourse; she is also apt to have her case attended to at once, as her attention is immediately called to it; and unless she is very low in the scale, she can, and will, afford to suspend her occupation until recovered. Chancroid and gonorrhœa are closely related, and are essentially filth diseases, hence the lower class of prostitutes are most apt to communicate them. The better class give syphilis, simply because the local lesions in women are usually of a trivial character; a mucous patch, a chancre, a condyloma, or tubercle upon the genitals of the female, is not likely to inconvenience her greatly, and she is apt to be unaware of its existence. In the majority of cases of syphilis in the female, it is impossible to detect any primary lesion whatever. As a general rule, the local lesion has disappeared long before she knows that she has syphilis; beside, true chancre is quite exceptional in women, and only occasionally do we meet with a typical sore in the sex. I do not believe that I have seen more than eight or ten cases, even with a large hospital and dispensary practice; and when encountered, the primary lesion is either a mixed sore, or so slight an induration that it is not noticed. Typical hard chancre is comparatively rare even in the male, but it is excessively rare in the female, and consequently the fact of a woman not having had a local sore, counts for but little in the matter of diagnosis of syphilis.

We will now consider simple urethritis in detail: But first understand that it is absolutely impossible, in some cases, to determine positively whether the disease is due to infection during intercourse, or to simple uncleanliness in the female; hence we are nearly always compelled to rely upon the degree and general characters of the inflammation for a diagnosis. A patient of a gouty diathesis, who eats and drinks to excess, is apt to have, a few days or weeks subsequently, a little urethral discharge of a muco-purulent character; this is most likely to occur after venereal excess. If it does not run into the virulent form as a consequence of dissipation, it will often subside in a few days without any treatment whatever. We should, however, pay little attention to diet, and advise abstinence from stimulants for a short time. Usually a mild injection and the administration of alkalies are all that are necessary to affect a cure. Simple cases of this sort are apt to result from intercourse with females who are menstruating, just getting over their menstrual period, or who are suffering with leucorrhœa or simple vaginitis

A very important factor in the causation of a large proportion of cases, is the existence of damaged spots or stricture in the urethra of the male. There is a form of gonorrhœa described by VAN BURKN and KEYES as "bastard clap," that depends upon the existence of stricture or congested granular patches in the mucous membrane of the urethra. Personally, I hold that most cases of simple urethritis are of this variety, for under certain circumstances they are almost sure to develop in patients with a damaged urethra who indulge in excessive sexual intercourse. Such cases are controlled in the same manner as those of simple urethritis from other causes, and require, as a rule, nothing but a mild injection and alkalies primarily; after the inflammatory symptoms have subsided, however, they require the occasional passage of a sound to restore the mucous

membrane to a healthy condition. The most important practical point in connection with simple urethritis of the kind just described is, that whenever a patient who has at any time had severe gonorrhœa, and complains of urethral discharge occurring frequently from trivial causes, we are justified in suspecting chronic pathological changes in the mucous membrane.

I believe the same causes which prevail in simple urethritis may originate and develop a virulent form of the disease; that the virus may be developed spontaneously from the decomposition of discharges in the female, whether these discharges be pathological or normal; and that by successive cultures and a process of evolution we have developed the special bacterium of the disease. Virulent urethritis may possibly result from various causes—from excessive eating and drinking, and sexual intercourse while suffering from simple urethritis; thus some persons apparently have a virulent form of the disease without specific infection. Virulent cases, however, usually result from contagion by intercourse, by contact with women affected with virulent vaginitis, or who have just had intercourse with an individual with gonorrhœa who has left the poison for the next victim.

The period of incubation is said to be from three or four days to two weeks, but in the majority of cases it will be found the disease comes on within two to four days after intercourse. Some cases, however, develop in a few hours, the rapidity of the development depending upon the susceptibility of the individual, the resisting power of the urethra, and the degree of virulency of the product with which the inoculation is made; hence I am inclined to think that there is really no definite period of incubation.

At the end of the so-called period of incubation, the patient experiences more or less itching at the meatus, with smarting on urinating, and on examining himself, he finds that the meatus is glued together by a little clear, sticky, deposit of mucous. During the next day an increased discharge is observed, accompanied with considerable heat and painful micturition. These symptoms gradually increase until about the 5th to the 7th day, at which time the disease reaches its maximum degree of severity. This period is termed the increasing stage of gonorrhœa.

After the inflammation has reached its height, the stationary stage supervenes. The discharge now becomes thick and creamy, and of a greenish color, due to its admixture with blood corpuscles. In some cases, distinct hæmorrhage occurs; the more virulent the case, the more greenish the pus, and the greater liability to distinct hæmorrhage. In some virulent cases, however, there is such a high degree of inflammation that the discharge is merely a greasy, thin, and sanious fluid, that becomes thick and creamy as soon as the inflammation subsides somewhat; the patient is quite apt to have chordee during this period.

Chordee consists of a painful bending of the penis during erection, and is due to inflammation of the corpus spongiosum. The penis is composed of three segments, the two superior, or corpora cavernosa, being the main factors in erection. When the organ is erect, the inflamed, infiltrated, and inelastic corpus spongiosum acts upon the body of the organ precisely like the string of a bow, and causes it to bend; the corpus spongiosum being highly sensitive, severe pain results from its own resistance to erection. The patient should be warned against "breaking a chordee," as such a course will result in severe hæmorrhage, and inevitable stricture. If the mucous membrane alone be infiltrated, it becomes less elastic, consequently when erection occurs, even without chordee, considerable pain results; and when there exists much inflammation about the parts, frequent erections occur reflexly. During the time the disease is at its height, there may be general constitutional disturbance:—fever; pain and heat about the parts; sense of dragging along the spermatic cord; pain in the testicles of a neuralgic nature; and back ache resembling lumbago. After remaining stationary for perhaps six or seven days, the disease begins to decline, all of the symptoms decreasing in intensity. In well managed cases the patient is apt to get along nicely, and in the course of about three to six weeks the discharge, is checked, and recovery is complete. When the disease becomes chronic, and the discharge thin and watery, we call it gleet, the duration of which varies from several months to as many years, a condition that may continue indefinitely in some individuals. We meet with cases of the latter form occasionally, and it is safe to say that no disease could be more obstinate to treatment.

The pathological anatomy of virulent urethritis differs from that of the simple form, only in degree. The principal changes consist of hyperæmia and swelling of the mucous membrane; beginning at the meatus, the irritating material, being primarily deposited at this point, involves the deeper portions of the canal sucessively, gradually extending backwards, until about the end of the first week, when (perhaps) one-half of the canal is affected. The process may stop here, but usually extends more deeply. For the first few days of gonorrhœa, therefore, deep injections are useless and should not be resorted to, for they tend to aggravate the inflammation, and to cause its further extension, and may set up a prostatitis or cystitis. As we have already seen, when the inflammation is at its height, there is apt

to be cellular infiltration of the corpus spongiosum, which later on disappears, excepting perhaps at certain points. The points at which it is most apt to persist are the *fossa navicularis*, the *lacuna magna*, and the junction of the *bulbous* and *membranous portions of the urethra*. It is in these situations that we are most apt to have stricture; it is also here that congested and granular patches of mucous membrane will be found. These congested and granular patches are often covered by fungous elevations, beneath which the formation of a stricture is likely to go on; that is, the infiltration of the corpus spongiosum localizes itself in such positions, and by contraction, lessens the calibre of the canal. The friction produced by the pressure of the stream of urine aggravates these localized morbid processes. Swelling of the mucous membrane and sub-mucous tissue, may be extensive enough to cause retention, and when the prostatic portion of the urethra is implicated, retention from inflammation of the prostate body itself may occur; in severe cases, retention may be due to simple reflex spasm.

The congested and granular patches just described, in connection with enlarged and inflamed mucous follicles and occasional herpetic excoritations, will explain the persistency of certain cases of gleet; and they also serve to explain the reason why some individuals claim they cannot touch a woman without having a dose of gonorrhœa. Such patients often come for treatment, and on examining them we discover these congested granular patches in the canal—the canal is damaged, consequently it cannot be sexually exercised without setting up a simple inflammation. If such patients are exposed to contagion by intercourse with a woman suffering from virulent vaginitis, they are apt to have a severe virulent urethritis, the morbid changes of which, superadded to the congested and granular patches in the canal, may bring about serious results. Strange to say, true ulcerations of the urethra never result from gonorrhœa *per se*, but from chemical or traumatic urethritis, and are found behind the obstruction in certain old cases of stricture. Inflammation of the entire bladder, or of its neck alone, is sometimes a factor in the morbid anatomy of gonorrhœa, which, however, cannot be treated of in this connection.

CLINICAL NOTES ON COCILLANA IN DISEASES OF THE LUNGS.

BY DAVD D. STEWART, M. D.*

Somewhat more than a year ago my attention was directed to cocillana, a newly discovered drug, said to possess therapeutic properties analogous to ipecacuanha, and to be worthy of trial in pulmonary affections. Scepticism regarding the virtues of so-called "promising" new remedies, and disinclination to essay their trial when having at hand drugs the efficiency of which experience had left no doubt, caused me to use it at first only occasionally, and a trifle perfunctorily, without attempting, in the hurry of practice, to keep records of results, until a number of favorable ones induced me to begin its systematic trial. I felt then more inclined to do this, understanding that the supply of ipecac root, which had diminished greatly in the past few years, was in danger of total exhaustion, owing to the continued large demand having resulted in the destruction of the plant in accessible localities in the limited area of South America to which its growth is restricted.† In view of this, it seemed desirable that a substitute for ipecac be found. Whether we have such in cocillana I am unprepared to assert, not having had opportunity for the thorough clinical trial necessary to permit authoritative statement. I have, however, no doubt that as regards the sphere of influence of the two drugs on the respiratory organs, the effects are not unlike, and the results obtained from cocillana convince me that it possesses therapeutic properties which render it even superior to ipecac in certain diseases of the air passages in which the latter is often used.

Cocillana is the bark of a tree—a species of *Guarea*, of the family MELIACEÆ. Like its near relative, the Goanese Ipecac or *Naregamia alata*, of India, it is used at the place of growth as an emetic and purgative (very rarely the latter), and is poisonous as an irritant-narcotic in over-doses. It contains apparently an alkaloid. It acts locally upon the mucous membrane, either when directly applied or when absorbed; in the latter case it is quickly excreted through the mucous membrane, the upper portions of which are successively more active in the elimination. It is excreted very slightly through the skin.

Specimens from Eastern Bolivia were brought to this country by Dr. H. H. RUSBY, and were described by Dr. N. L. BRITTON, of Columbia College, as being a new genus of plants in the family ANACARDIACEÆ, under the name *Sycocarpus Rusbyi*. A subsequent study of better material caused him to withdraw this opinion, and class the plant as above stated, in the *Bulletin of the Torrey Botanical Club*, July, 1889, p. 189.

Histories were taken of forty cases in which cocillana was prescribed. These comprise 10 of acute, 1 of subacute; and 19 of chronic bronchitis; 5 of broncho-pneumonia, and 5 phthisis. Nineteen of the forty failed to report after the first visit. These are not considered here, al-

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† Notes on Ipecac and Cocillana. H. H. Rusby. M. D. Pharmaceutical Record.

though I think it likely that some of the cases of bronchitis among them were benefited if not cured, as sufficient of the drug was always given to last at least twelve days, and its effects in full doses seem usually to be exerted promptly. Of the 21 remaining, 5 were cases of acute and 11 of chronic bronchitis, 4 of broncho-pneumonia, and 1 of phthisis.

The shortest time that any of these were under treatment by cocillana was 6 days; the longest, 12 weeks; the average 22 days. In many of the cases other drugs had been unsuccessfully tried when cocillana was begun; they were then discontinued and cocillana alone used, save in one or two instances in which a few doses of digitalis, chloral, or a laxative, were given, to meet a special indication.

The following are brief, selected histories from the twenty-one:

CASE IV. *Acute bronchitis.*—T. C., aged twenty-one; clerk. First seen July 19, 1888. Had had frequent and troublesome cough for about a week, induced by exposure. Cough was loose and expectoration easy. The lungs were full of large and small moist râles, with a few scattered dry râles. There was vesiculo-bronchial breathing; no alteration in resonance. The breath was offensive and the bowels constipated. A purge was given the first night, and concentrated tincture cocillana was prescribed in half-teaspoonful doses, to be taken every three hours. He returned in four days stating cough was worse and that the medicine nauseated him. Two days later he reported he was no better. Cocillana was discontinued.

CASE V. *Chronic bronchitis.*—H. M., aged fifty; carpenter. First seen July 30, 1888. Had had winter cough for twenty years. Present cough had continued since the preceding winter. Expectoration was moderate in amount, mucous in character; no emaciation; no albumen or sugar in the urine; heart normal; no alteration in pulmonary resonance; râles in chest (their character omitted from the records). He was ordered a half-teaspoonful of concentrated tincture of cocillana every three hours. Reported in a week that cough occurred less often, expectoration had diminished in amount and was more easily raised. Ten days later he was no better; cough and expectoration were about the same. A week subsequently cocillana was discontinued, no decided improvement having resulted after the first few days.

CASE VII. *Chronic bronchitis.*—S. M., aged eleven; school-boy. Had had cough more or less constantly for five years when first seen on July 13, 1889. It was then very troublesome and moderately loose, with muco-purulent expectoration. He had night sweats and was emaciated. A physical examination showed dry and moist râles and harsh respiration without alteration in percussion resonance. It was directed that the chest be pustulated with a mixture of croton oil and sweet oil, and five grains of ammonium chloride, in a half-drachm of compound licorice mixture, was ordered to be taken every three hours. This was continued until August 1st, but very little improvement resulted. Fifteen minims of concentrated tincture of cocillana every three hours were then prescribed. On August 17th, when again seen, he was decidedly better. He felt stronger; night-sweats had disappeared; appetite had improved; cough was much less, and expectoration more easily raised. On the 24th it was noted improvement had continued; râles had disappeared, though the breath sounds were still harsh. Sufficient cocillana was then given to last a month, in doses of fifteen minims four times daily. On September 24th, when last seen, all signs of bronchitis had disappeared.

CASE IX. *Chronic bronchitis.*—Mrs. M. T., aged twenty-one; housemaid. First seen August 14, 1888. Had had cough for two years. It was tight, paroxysmal, very troublesome, and much worse at night. There was constipation. A physical examination of the chest showed no dulness; diffused râles, mostly sibilant and sonorous; heart normal. Cascara was prescribed for the constipation, and concentrated tincture of cocillana ordered, in fifteen minim doses, every three hours. On August 14th it was noted there was improvement; cough was less paroxysmal and less frequent; expectoration was easier. From this on, cocillana was continued in the same dose. She was seen every week or so until November 20th, when the paroxysmal cough had disappeared and râles could no longer be heard. Cocillana was then discontinued and the compound syrup of the hypophosphites substituted. She reported the following March that there had been no return of cough.

CASE XVIII. *Chronic bronchitis.*—D. K., aged fifty; clerk. First seen February 1, 1889. He had had winter cough for several years. The present attack had existed since spring. Cough was frequent and somewhat loose. There were present chest pains; no fever; clearness on percussion; diffused, moist râles, normal heart. Ten grains of ammonium chloride, in a drachm of compound licorice mixture, were ordered to be taken every three hours, until February 7th, when, not having improved, a half-teaspoonful of concentrated tincture of cocillana, at the same intervals, was substituted for this combination. On the 13th he was decidedly better; stated last medicine had "done miracles." The expectoration had lessened in amount within two days, was more easily raised, and cough occurred less frequently. A few scattered moist râles could still be heard. On the 16th these had dis-

appeared, and cough was only present infrequently. On the 23d he reported that cough had entirely ceased. Cocillana was then discontinued.

Case XXI. *Chronic bronchitis.*—X., aged thirty four, physician,‡ had had cough with muco-purulent expectoration for two and one-half months, when he began treatment with cocillana in April last. Had been in the hands of a brother practitioner, who had prescribed various remedies without benefit resulting. Cough had become so troublesome at night that it prevented himself and others from sleeping. Night-sweats and complete anorexia were present. The bronchitis seemed at its worst when cocillana was begun. Ten minims of the fluid extract were taken three times a day. The cough ameliorated much at the end of the first day, and a comfortable night was passed. During the second day he was caught in a heavy shower and thoroughly drenched, and remained in this condition an hour. As a result, a severe spell of coughing occurred on rising the following day. Cocillana was continued through that day, and in the evening cough had quite ceased, and the lungs seemed as comfortable as they had ever been. By the sixth day of treatment, cough had entirely disappeared. A noticeable gain in strength was appreciable, no doubt due to the improvement in his general condition. Night-sweats had ceased, and increase in appetite had been immediate and great. The latter was thought to be the direct effect of cocillana, as it appeared shortly after taking the first dose and seemed affected by each succeeding one. Cocillana was discontinued at the end of a week, he feeling well, and there being no recurrence of cough. After several weeks of immunity, cough gradually returned, though not sufficient to cause any degree of annoyance except during one or two days when a fresh cold was caught. Believes that a regular and persistent use of the drug would have effected a cure.

Case I. *Acute broncho-pneumonitis.*—J. C., aged forty; hod-carrier. First seen July 13, 1888. Had caught a heavy cold three weeks before. Cough had been quite constant since. It was somewhat tight; expectoration slight. There were constipation, anorexia, daily chilly sensations, slight fever and sweats. He was able to be about, though bodily weak. Dulness was present in small areas through the left lung. Scattered large and small dry, with a few moist, râles could be heard in both lungs. He was directed to rub the chest with a mixture of croton oil and sweet oil, and fifteen minims of concentrated tincture of cocillana were ordered to be taken every three hours. On the 16th he reported he felt improved. The cough had loosened in one and one-half days after beginning treatment. Expectoration was less in amount and more easily liberated. Constipation was relieved. The dose of cocillana was increased to a half teaspoonful. On the 25th, the date of his last visit, he reported he felt much stronger, and that cough had disappeared. I did not see him at this visit nor thereafter. As no examination of his chest was then made by the assistant in charge, I am unable to state if the areas of slight consolidation had cleared.

Case XVI. *Chronic broncho-pneumonitis and plumbism.*—P. S., Aged twenty-six; house-painter. First seen November 7, 1888. Cough had existed since the preceding summer. It was alternately tight and loose. Expectoration was scanty. When he first appeared for treatment, cough was difficult and painful, and there were rheumatoid pains in the chest and shoulder muscles, and in the large joints. He had had occasional light attacks of lead colic. There were present cold feet, headache, palpitation of the heart on exertion, sweats, a blue line on the gums, no constipation. There was dulness posteriorly at the lower part of the right inter-scapular space. Dry râles were heard in both lungs. He was directed to pustulate the chest with diluted croton oil, and potassium iodide in a stimulating expectorant mixture was prescribed. Potassium or ammonium iodide, and, occasionally, ammonium carbonate, in an expectorant mixture, were afterward ordered and continued until November 24th. At that date he was much improved and discontinued treatment, not returning for inspection until January 15th. The dulness was then less than at first, but cough was very troublesome. A careful examination of his sputum for tubercle bacilli gave negative results. Concentrated tincture of cocillana was prescribed in half-teaspoonful doses, every three hours. He reported on January 23d that cough had disappeared in two days after beginning cocillana. The dulness posteriorly still persisted. Cocillana was continued. He has not been seen since.

Of the cases of acute bronchitis, Case IV alone, made more than two visits, so that a report on the use of cocillana in the remaining four is somewhat incomplete. It was noted that two (Cases X., IX.), at the date of the second visit, were improved; cough and expectoration had lessened. One of these stated that the expectoration, though less in quantity, was more easily raised. These cases were of average severity and had lasted two weeks. In both, the cough was somewhat tight. One of the remaining cases (Case XIV., seen in February) reported that he was not improved, several days after his supply of cocillana should have been exhausted. He admitted not taking it with regularity. His occupation, black-

‡ From notes furnished by himself

smithing, had exposed him to frequent sudden changes in temperature. In this case there was present an acute pharyngitis, in addition to a pronounced bronchitis of two weeks' duration. In the fifth case, which when first seen had lasted a week, there was no change after ten days' treatment under doses of fifteen drops of the tincture of cocillana. This quantity was afterward increased to a half teaspoonful. As stated, the case was not again seen.

A more satisfactory report can be made on the cases of chronic bronchitis. Most of them were under observation for a longer period than the acute cases. When these appeared for treatment the average duration of the symptoms was thirteen months. The shortest period was two and one-half months; the longest, five years. Five of these cases were cured; three were decidedly, and two moderately, benefited. One (Case V.), seemed to mend at first, but the improvement was not maintained, so that cocillana was stopped. All of the five that were noted to be benefited but not cured, were doing well at their last visit, and the indications seemed to be that a cure would result if they continued treatment. It may be that some of these were cured and did not afterward report the fact, but of this there is no certainty.‡ Too great press of work at that time prevented me from following the cases as closely as I desired.

All of the four cases of broncho-pneumonitis were improved as regards cough and expectoration, and two of them quite markedly. Histories of the latter two have been already related. One of the others, a lad of seventeen, who had had a broncho-pneumonitis of two weeks' duration, was cured by the ammonium salts, but suffered a relapse. There was a small area of dulness at the left base posteriorly when he re-presented himself for treatment. Cough was troublesome and expectoration difficult. Cocillana (concentrated tincture), in doses of fifteen minims every two hours, at first caused nausea, which, after a short time, disappeared. Cocillana was persevered in, but on the twenty-first day of treatment dullness at the left base persisted, though cough was much less troublesome, and expectoration far easier than before this drug was begun.

The only case of phthisis in which cocillana was prescribed alone, that afterward reported progress, was not benefited. There was consolidation of the anterior and posterior apices on the left. Cough has been incessant for three weeks. There were night-sweats, loin pains, emaciation, and atonic dyspepsia. At first there seemed to be slight improvement, but on twentieth day of treatment cough and night-sweats were as bad as before, and the general condition had not ameliorated.

A conjoint analysis of the twenty-one cases shows that sixteen of them were improved while taking cocillana, and that five of the sixteen were cured; that these five were cases of chronic bronchitis, and that the symptoms which were most distinctly influenced were cough, expectoration, night-sweats, anorexia, and constipation.

In all of the sixteen in which cough was not removed it was lessened. Expectoration was diminished in amount, in all of the sixteen in which it was not entirely checked, and in six of the sixteen in which expectoration was difficult before cocillana was begun, it became much less so later under this drug. In at least seven the cough became looser as it diminished in severity and frequency. The lessening in cough and the amount of expectoration, usually occurred within the first week. Another of the twenty-one (Case V.), who reported early improvement in cough and diminution in amount of expectoration, which also was more easily raised, stated at a later visit that this amendment was not maintained, so that this case is not classed with the improved in the above analysis. Two of the twenty-one (Case IV. and that of phthisis) stated that cough was aggravated rather than improved by cocillana.

Night-sweats present in three of the sixteen, disappeared in two. Appetite was decidedly and early improved in three who complained of its loss when they first came under observation. In three of the twenty-one it was noted that the bowels were somewhat looser while cocillana was being taken, though no laxative had been administered. It was not supposed that this was due to any special action of the cocillana until my attention was very recently directed to it by DR. RUSBY, the discoverer of the drug, too late for inquiry to be instituted as to its frequency in others who had made no mention of it in specifying results of treatment. Two cases made complaint of nausea while taking the drug in moderately full doses at short intervals. In both, however, this effect was quite ephemeral, soon ceasing though the medicine was continued.

It results from the foregoing analysis that cocillana is serviceable in bronchial catarrh, especially the subacute and chronic forms, when accompanied by scanty or moderately profuse secretion, whether the cough be tight or loose. It seems to possess the power to render cough less frequent and difficult, and the bronchial secretion less viscid and more easily expectorated, while at the same time it diminishes it in amount.

Perhaps the best preparation of cocillana for administration is the fluid extract, because of the relative smallness of the dose: seven and one-half minims of it equal about half a fluid

‡ A renewal was given to each of the five at their last visit.

drachm of the concentrated tincture. The fluid extract is to be preferred to the tincture in cases of acute bronchitis, since the amount of alcohol contained in the latter is apt to aggravate the inflammatory condition. In cases of chronic bronchitis, broncho-pneumonitis, and the bronchitis intercurrent with phthisis, the tincture is not open to this objection. The dose of the concentrated tincture I employed in most of the cases is, I am told, somewhat too small: an average dose equalling about three-fourths to one fluid drachm.—*Med. News*, Aug. 24th.

2630 North Fifth Street, Philadelphia.
August 1, 1889.

A NEW LAW—EVERY CASE OF TYPHOID FEVER MUST BE REPORTED TO THE HEALTH OFFICER.

Typhoid fever is a disease which the State Board of Health has declared to be "dangerous to the public health," and as such it comes under the law requiring physicians to report to the Health Officials. Any physician who shall neglect to immediately give such notice, "shall forfeit for each such offense a sum not less than fifty nor more than one hundred dollars." And since October 1st, "*any householder* who shall refuse or willfully neglect immediately to give such notice, shall be deemed guilty of a misdemeanor, and liable to a fine of one hundred dollars, or in default of payment thereof may be punished by imprisonment in the county jail not exceeding ninety days."

It seems important that the public generally shall understand that this new law applies to scarlet fever, diphtheria, small pox, and all diseases dangerous to public health, as well as to typhoid fever. At this season, typhoid is most prevalent, and is especially dangerous in times of drouth; therefore the safety of the people will be greatly promoted by having every case promptly reported to the Health Officer, who (Sec. 1, Art. 137, Laws of 1888) is required to promptly attend to the restriction of the disease. The new law makes it a misdemeanor, punishable by fine or imprisonment, for the Health Officer to knowingly violate that section of the enactment, or for any person to violate the orders of the Health Officer made in accordance with that section. The actual penalty, however, which is incurred, is—*Death!* And about one thousand people are lost in this State annually from typhoid fever alone. The saving of a large proportion of these lives is the real reason for the effort, in which it is hoped all people will join.

The Medical Age.

A SEMI-MONTHLY REVIEW OF MEDICINE.

B. W. PALMER, A. M., M. D., Editor.

—Published By—

GEO. S. DAVIS, Medical Publisher, Box 470.

DETROIT, MICH., OCT. 10, 1889.

Editorial.

DEFECTS IN MEDICAL EDUCATION.

The time must soon come when the medical man will necessarily be possessed of more general and accurate information in comparative medicine, physiology, and pathology, the reasons for which are obvious. First, many of the greatest truths obtaining to general medicine are derived from study and observation of the lower animals: Second, such knowledge is inextricably interwoven with all that pertains to the general prophylaxis of contagious diseases, to public hygiene, and to State medicine. There is more than a mere suspicion entertained that cats, dogs, and horses are responsible for many skin diseases and several of the exanthemata; and it is an established fact that felines convey diphtheria, and promote epidemics thereof. Again, glanders, charbon, foot and mouth disease, tetanus, and tuberculosis, are derived from domestic animals; and ergotism in cattle is apt to induce a train of most unpleasant and threatening symptoms in those who partake of the flesh of such diseased creatures.

In spite of these facts, the number of either general or special practitioners who can recognize these diseases in animals, is exceedingly small; and no better evidence of the existing lack in medical education is needed than, that no one is able to pronounce definitely regarding a case of hydrophobia in either man or beast. Certainly, Comparative Physiology, Pathology, and Therapeutics, as well as Zoology and Pharmacy, should find place in the curriculum of medical schools.

The passage of a strict "Compulsory Notification Bill" in Great Britain, recalls the fact that few of those newly fledged from the medical schools are competent to pronounce definitely in all, or even a majority of contagious diseases, such as variola, rubeola, röthln, scarlatina, diphtheria, or typhus. It would seem as if epidemics of these diseases might be utilized for clinical purposes, especially as there are few large cities where they cannot be seen.

Not to see them, is not to be able to recognize or treat understandingly throughout their entire course; and to labor under the latter disability, especially, entails the discredit of ignorance in every-day work.

Psychology and Mental Diseases, constitute another branch of medical education too generally neglected, for in connection with the schools there is little or no provision made for studying maladies of this class; and that, too, in the face of the obvious fact early recognition of significant symptoms and phenomena is of the greatest importance. At present, with existing teaching and literature, the general practitioner must remain in a hopeless state of ignorance, except in so far as he may derive knowledge through intuition and personal failures, unless especial opportunities can be obtained for clinical observation and study in some large insane hospital or retreat. How many that assume the knowledge of experts can define somnambulism in even one of its many phases, or differentiate from the artificial form known as hypnotism? Or how many can distinguish between true clairvoyant ecstasia, and the same condition as derived from hysteria? And yet the causes in production, and the changes temporarily induced within the nervous system, are widely different. It is the lack of such precise and definite knowledge that tends to keep insane retreats filled to overflowing, for a large majority of cases, if early recognized, are susceptible of relief; and it is useless to deny that persons unfit for the asylum are often relegated to its restrictions through medical incompetency.

The foregoing naturally leads to consideration of the fact that, though the enormous development of the several branches of medical science latterly tends to diminish the attention paid to medico-legal questions, and to leaving them wholly to specialists or experts, there is great need for more definite and better education in this particular branch of learning. Every practitioner is liable to be called upon at a moment's notice to give expert evidence in a court of law, and therefore should have something more than a mere smattering familiarity with medical jurisprudence. A half dozen perfunctory lectures, loosely compiled from BECK, TAYLOR, or STILLE and WHARTON, delivered by a legal gentleman ignorant of the commonest principles of pathology, chemistry, or toxicology, or by a medical man innocent of the first principles embodied in BLACKSTONE, COKE, *et al.*, is all that the student can expect worse, many schools, while claiming a Professorship of Legal Medicine, openly and *in toto* violate the promises made in their announcements and catalogues. That medico-legal knowledge is in a state of chaos, and assumed rather than real, has been made most painfully evident in every criminal trial of note especially reprehensible was the ignorance manifested during the arraignment of GUITEAU for the assassination of President GARFIELD, and again in the late MAYBRICK trial at Liverpool. There is no knowing the moment the general practitioner, in any locality or society, may be brought face to face with the gravest crimes and criminals, when on his acuteness or expertness the question of guilt must turn it may even be a matter of life or death. And while it is not essential that questions of toxicology, which belong more properly to the domain of the expert chemist, should be definitely decided, every medical man should at least possess a working familiarity with this branch of science, sufficient to determine probabilities, and differentiate between acute and chronic poisoning by drugs in common use. Herein some of the "experts" in the MAYBRICK case stumbled, exhibiting an ignorance that, to put it mildly, is unpardonable in this Nineteenth Century.

Again, there is a vast range of information pertaining to public health and economy which deserves extended and thoughtful consideration on the part of teachers and students.

Two other weak points in the medical curriculum are, Obstetrics and Gynæcology, in which practitioners obtain knowledge chiefly at the expense of their own failures. These are subjects that cannot be taught successfully by books or lectures, but only at the bedside and examination table. The need of better instruction in these respects is felt abroad as well as at home, for the Lancet (London) declares it has been recognized by "Many students in schools where the requisite clinical instruction cannot, in the very nature of things, be given, and they have gone to Ireland or the Continent to make up the defect. It is probable that all the instruction needed could be got, and got well, at home, if teachers in larger towns once realized the demand for it. Be this as it may, let students remember that the day is not far distant—perhaps the night—when, in a lonely place, miles away from all help, they will find it an inexpressible advantage to be able to recognize presentations, to apply instruments, to meet hæmorrhages, and, in the more leisurely work of practice, to differentiate and deal with uterine and ovarian disease."

Closely allied with the foregoing, and yet quite distinct is the knowledge of Children's Diseases, which constitute so large a part of medical practice, but which are so little seen in the ordinary hospital routine.

The moral of all this is, that students should lose no opportunity of making their knowledge more minute, especially of such diseases as are common. Rare cases are very interesting, but common diseases are of momentous consequence, and he will be the best and most successful practitioner who lays early a sound

foundation in a knowledge of them, of their treatment, and of the treatment of those complications which tend most to the permanent injury of patients.

BANEFUL RESULTS OF TEACHING CHILDREN ANATOMY AND PHYSIOLOGY.

At the present time, the great majority of well informed people, and quite a few medical men believe, that anatomy and physiology should be taught in schools, and the practical carrying out of this idea usually results in directing the attention of children to the structure of their bodies and the functions which certain organs perform. It is well for every one to know early in life the wants of the body—the need of pure air and plenty of it; good food and how to prepare it; cleanly habits in every respect; bodily exercise, how and when to take it, and its relations to rest and sleep; all should be understood by every cultivated person. More than that, everyone should be taught how to obtain all these necessities of life. There can never be too much knowledge obtained by anyone on these subjects. A full knowledge of hygiene, so far as it is related to one's requirements of life and health, and to one's relations to the world around, should be included in the education of every child. It is only when education is carried beyond this, by directing the attention to the personal anatomy and physiology, that the mind is liable to become perverted. A little learning in anatomy and physiology is truly a dangerous thing. The heart will not do its duty more faithfully, nor will the stomach digest food better because the one they belong to knows all about their structure and functions. On the contrary, either of these organs may be greatly disturbed by thinking about them. This is often illustrated by students of medicine, who for want of proper subjects, dead and living, are obliged to turn their attention to their own bodies as means of illustrating the things that they read and hear about.

To study the structures and functions of one's own body is a kind of vivi-section which is nearly always followed by bad results. The only way that students of medicine escape from mental perversion (and they do not always escape), is by having subjects before them continually which direct attention away from themselves; and this diversion of thought should be continued when they engage in practice. In fact, we are fully satisfied, from careful observation, that the books on anatomy and physiology in use in schools, and the way in which these subjects are taught (excepting in medical schools), are all wrong, and injurious in their effects.

Doubtless the foregoing will provoke severe criticism from a multitude of worthy parents, and not a few medical men—especially those who have written school books for children on these subjects. But, there are no arguments yet, for this kind of education, that are not offset by well known facts on the other side. Such knowledge, in the first place, is not at all necessary to our welfare. The laws of life and health can be fully obeyed by knowing what is necessary to life, and all this can be obtained without any knowledge of one's personal structure and the action of certain organs. We have never seen any benefit derived from teaching children a little smattering of anatomy. On the contrary, it is either soon forgotten, or else leads to the habit of introspection, which is a waste of time, and finally leads to a great variety of functional affections. Some say that the evils of this kind of information can be avoided by imparting such knowledge only to those who are old enough to fully comprehend it; but while that would lessen the evil, it would not wholly avoid it.

Every observing practitioner of medicine sees the bad effects of watching and studying one's own organs of digestion, respiration, and circulation. Indeed, it is a fact that certain doctors of medicine frequently cause introspection by exciting the interest of their patients in their own cases. Those symptomatologists who lay great stress on every trivial physical feeling of patients, often do a great deal of mischief. They direct the attention of patients to themselves, and set them to watching and speculating about the value of every symptom in the form of aches and pains, until they are converted into night and day watchmen of their own frail bodies.

Next to the doctor in the order of mischief-makers in the business of producing introspectors, is the intelligent mother who has had lessons in physiology. Such a one usually injures her own children and those of her neighbors who come within reach of her amateur teaching of the laws of life. It is ridiculous to tell a child that it must not eat candy or anything else except at the proper meal times, *because* it will injure the stomach, cause dyspepsia and worms, and general ill-health by exciting the secretion of gastric juice at improper times, and create a false appetite by deranging the functions of the pneumo-gastric nerve. How much wiser it would be to have a child obey the laws of health because the parents desire him or her to do so.

The amateur physiologist and psychologist insists that children should be treated like rational beings; that they are to be persuaded by appealing to their reason; and not to be obliged to yield a blind obedience to a parent's commands. Practically, we see that children prosper best who obey first, and learn the reason of things afterwards. But, again, the progres-

sive people deem it a duty to answer a child's questions, of all kinds, and at all times. This rule has many exceptions that should always be observed. The proof of this is shown in the fact that parents, teachers, and doctors of medicine, restrict their teaching to portions of anatomy. Now, it is quite natural for a child who has been taught all about the head, stomach, liver, and kidneys, to desire to know about equally important organs, but the most progressive, liberal, and enthusiastic have not yet ventured to teach the anatomy and functions of the sexual organs to children.

It has also been observed that mothers and lady teachers are most disposed to err in the management of girls, especially in regard to the development of introspection, and in directing attention to the subject of reproduction. Those who have the care of the young, and are best qualified for the duties and responsibilities of such offices, occupy the minds of their pupils in acquiring sound, useful information, giving no attention to the social problems until the maturity of those committed to their care, and then they give them only such information as may be necessary to guard them from harm at puberty.

NITRITE OF AMYL IN EPILEPSY AND PURTUSSIS.

Some years since, the late Dr. DAVID W. YANDELL, of Louisville, Ky., suggested the employment of amyl nitrite as an anti-spasmodic, and incidentally remarked its internal administration might prove of value in some forms of epilepsy, especially if it could be given in a full dose at the first evidence of an *aura*. So far as known, however, this suggestion has met with little attention, and the drug administered only in cases of *status epilepticus*, though a moment's consideration of its physiological action could but lead to the conclusion it might be satisfactorily employed in simple convulsions. Further affirmative evidence was had by the writer through actual administration by inhalation to a convulsed (epileptic) canine, but opportunity has not since offered for experiment in the human animal. Recently, however, Dr. J. P. PARKINSON, of London (Eng.), writes the British Medical Journal that, being called to a very severe fit in a young man who had been epileptic from birth, and whose mind had been so impaired that, though twenty-one years old, he was unable to read, write, or dress himself, he determined to try amyl nitrite.

"After inhalation of one capsule, the convulsion ceased, and in about twenty minutes the patient was himself again, the insensibility which follows such fits being almost nullified.

"Since then the drug has been tried four times, and each time with success; if administered at the commencement of the fit, the latter was aborted, and the insensibility almost completely prevented. This patient is in the habit of having, on an average, a fit daily, and frequently a succession of fits—status epilepticus. He has been a patient for years at the Epileptic Hospital, Queen's Square, and has been taking bromides daily, but apparently with no effect."

Though the action of amyl nitrite has not been worked out in this instance, it is more than probable, like glonoin (trinitrin), it is due to its dilating influence upon cerebral arteries contracted during convulsions.

The marked anti-spasmodic influence exerted by the drug, led the writer some years since to employ in pertussis, and with most happy results, as it rarely, if ever, failed to cut short the cough paroxysm if administered promptly at the first indication of an onset; a teaspoonful of the following being employed for a child of six years:

> Amyl nitrite; 0.8 grammes,
> Spts. vini recti, 5.8 grammes.
> Glycerini Pricii, 9.7 grammes.
>
> M.

This formula has a wide range of applicability, and is of value in spasmodic asthma, torticollis, pseudo-membranous laryngitis, etc. In fact, the benefits to be derived from the internal administration of amyl are scarcely appreciated, and the drug has never received the attention it deserves.

PIANO AND PUBERTY.

A thought, which every physician should carefully explain to the mothers of young girls, and, in so far as possible, insist upon correction, is thus expressed by LAWSON TAIT:

"To keep a young girl, during her first efforts at sexual development, seated upon a music stool, with her back unsupported, drumming vigorously at a piano for several hours, can only be detrimental."

Further the Directory of the Royal Elizabeth School, in Berlin, has entered a strong protest "against the practice of allowing young girls of doubtful musical ability to spend hours at the piano, to their own physical detriment and the torture of their hearers."

We have known the seeds of spinal disease, to be thus sown, or the incipient disease fostered to early fatality. More, the piano stool is responsible for many of the ills pertaining to the reproductive organs of females. Music masters, if successful in their calling are usually most ignorant of anything but music, and their commands as to practice should be ignored, or regulated to meet the demands of the individual as regards health and common sense. One hour of daily practice at the piano

or organ, divided into two sittings, is as much as any young girl can bear well, and even this is too much in many instances. Two hours is pernicious even to a healthy well developed woman. In England, a still more pernicious custom is prevalent in some boarding schools, of requiring misses to sit not only from two to four hours at the piano, but also to do so while wearing the "back-board," an instrument of torture responsible for more than a few cases of Pott's disease.

DETROIT'S EXPOSITION.

The Exposition appears to have been a complete success from every stand-point, having drawn to Detroit exhibitors and sight-seers from all parts of the United States and Canada. This must be gratifying not alone to the managers, but to exhibitors and the people resident. On every hand is heard nothing but praise, and in spite of the unexpected strain put upon the hospitality of the city, the guests generally were well cared for, and ample facilities afforded for getting to and from the grounds. The representative of one Boston firm, speaking of the success attained, declared the Exposition would net to his house above $30,000, as the result of an exhibit made.

Some appreciation may be had of the enormous attendance from the fact the Michigan Central Railway alone, including its Belt Line, carried 120,000 people to and from the grounds, while the steamers, street car lines, and other modes of conveyance, must have accommodated fully five times as many more.

Such success in an initial Exposition is phenomenal, and wholly beyond the expectations of the most sanguine. That the Exposition was not without interest to the medical and pharmaceutical professions is evidenced by the number of callers at our office, all of whom expressed their unbounded admiration for the enterprise of Detroit, and for its "great show," along with words of unalloyed praise for the exhibits made in the way of medical and pharmaceutical preparations of local manufacture. If we may judge by the words spoken, the normal liquids exhibited by Messrs. Parke, Davis & Co. attracted no little attention, and the representatives of both professions universally gave expression to the wish that more accurate and assayed standards should obtain in all galenical preparations.

All in all, there is reason to believe that the Exposition will prove even a greater success another year, and that its permancy as an annual fair is assured.

We congratulate the founders and promotors, as well as the citizens in general, in the results attained.

FASHIONABLE CONSULTING PHYSICIANS.

The following from Blackwood exhibits a phase of medical practice,—one by no means common in America, however,—with more or less justice:

"The consulting physicians sit for a great part of each day, tossing the sovereigns and shillings into the drawer, where they are decorously put out of sight, pronouncing peremptorily on the destinies of their miserable fellow-creatures, scattering broadcast sentences of death or slow torture, consolation under mitigating conditions, reprieves, or plenary absolution. Custom may lighten the weighty load of their responsibilities, but surely all the same it must sit heavily on them. For, after all, they are human like the patients, and occasionally they must themselves be out of condition, and far from feeling up to the mark. Case after case, and often for the first time, is brought panoramically beneath their observation, and each minute is precious when there are so many to be advised. They are invited at a moment's notice to diagnose the origin and the course of complicated and obscure diseases; they are asked, in the way of ultimatum, all manner of embarrassing questions as to methods of treatment and probable results. They must answer the main questions to the best of their ability, and if they do not actually put forward claims to infallibility, they are bound professionally to speak with the assurance attaching to their position. As a rule they are sympathetic, and strive to soften down unfavorable opinions, but there are desperate cases, and not a few of them, in which it would be cruel kindness to conceal the truth. The mother who brought a daughter she fancied was merely delicate, lifts herself in speechless anguish into the dismal four-wheeler, in the conviction that her child is in a hopeless decline. How the sun has been darkened to her during the last long hour or two! and, like SCOTT standing over the grave of JOHN BALLANTYNE, she feels it will never again shine on her so brightly as before. The husband who thought there was nothing serious the matter with his young wife, reads solemn warnings in the ambiguous prognostications of the oracle, and, striving manfully to master his vague apprehensions, knows well that his wedded happiness is at an end."

HOW MUCH SHOULD A CITY PAY ITS HEALTH OFFICER?

The State Board of Health has recently published a paper by its Secretary, Dr. H. B. BAKER, in which he asks the question how much the average city or village can afford to pay its Health Officer, He answers this question in this way: Statistics which cannot be

questioned prove that in those localities in Michigan where the recommendations of the State Board of Health are carried out, about 80 per cent. of the deaths from diphtheria and scarlet fever are prevented by the thorough isolation of all infected persons, things, and places. Statisticians usually value a person in the prime of life as worth to the community about one thousand dollars. Dr. BAKER thinks that in a village of 1,500 inhabitants a Health Officer can easily save the lives of two children and one grown person in each year, and concludes that such a village can well afford to pay its Health Officer $2,000 for the prevention and restriction of scarlet fever, diphtheria, and typhoid fever — and make money by the transaction.

Book Notices.

SCRIBNER'S MAGAZINE. Pub. Chas. Scribner & Sons, N. Y. $3.00 per year.

This periodical continues to more than hold its own in the minds of the reading public. The number for October of the current year is exceptionally valuable and interesting. Among the illustrated papers are: "How I crossed Masai-Land," by JOSEPH THOMPSON, which tells in fresh and concise form the story of the author's wonderful journey, performed in 1883, from the African coast to Lake Victoria Nyanza over a route never before travelled by civilized man; "Electricity in War," by Lieut. W. S. HUGHES, U. S. N. which includess the history of such devices as search lights, torpedo detectors, signals, logs, and range-finders: "A Summer in Iceland" tells of CHAS. S. SMITH'S brief experiences in this Danish possession that, only for contributions by tourists would be almost forgotten to this part of the globe: "The life of Benvenuto Cellini," provides EDWARD J. LOWELL with material for a short paper upon an attractive subject.

Also DONALD G. MITCHELL, (Ike Marvel) who writes so seldom of late that he is almost unknown to younger readers, contributes in his usual interesting manner "A Scattering Shot at Some Ruralities," embodying some pertinent reflections on the decay of New England farm life, and the social changes wrought thereby.

A very practical paper appears from the pen of Prof. N. S. SHALER, who formulates most practical suggestions as to the improvement of the "Common Roads" of the United States, which, as must be admitted are in a most deplorable and shameful condition. This contribution should attract the widest attention and lead to more effective State legislation.

Of the poetry, little can be said; it is neither better nor worse than the average that appears in periodical literature of this class.

In fiction, a short story by WILLIAM MC KENDREE BANGS, (the author of "Extenuating Circumstances") entitled "The Minature," is exceptionally commendable; therein a most subtle problem is proposed, and a dramatical and exceedingly original situation evolved

The "Master of Balantrae," by ROBERT LOUIS STEVENSON, is concluded. Probably no work of late years has been so generally criticised, favorably and unfavorably. Yet in spite of some defects, that after all are only of minor importance, it is a strong tale. These defects moreover, are merely the lack of evenness, so to speak, in some chapters, such as is liable to occur to any author whose production requires more than one sitting. We wish we could speak as favorably of HAROLD FREDERICK'S "In the Valley."

MOTHER, NURSE, AND INFANT. By S. P. Sackett, M.D. 12mo.: pp. 380. Published by H. Campbell & Co., N. Y.

The author, in his preface, declares his chief aim is: "To offer to nurses, and especially to those women who desire to make monthly nursing a vocation, the instruction which they need for that purpose, sufficiently illustrated, at a moderate price."

We regret to say that the volume, from this standpoint, is a gross mistake, its tendency being to foster quackery and meddlesome interference in the lying-in room, as based upon insufficient and impracticable knowledge and information. Further, the desire to make a volume of fair and salable size, has led to many incongruities: For instance, two chapters are devoted to Prescribing, something the nurse should be taught to fight shy of, and she is offered a lot of formulæ, culled apparently from WYETH'S and other "Prescription" books, with all their case terminations and directions in Latin. What the monthly nurse has to do with "Misce et fiat haustus in jusculo calido partitis vicibus sumendus," is beyond our comprehension. On the same page she is told also: "The following is a convenient form and one not liable to mistakes: Magnesiæ sulph, ʒ ij; syr. rhei., f. ʒ j; infus. sennæ, f. ʒ j: M. et fiat haustus"—which is liable to prove "Greek" to the modern Sairey Gamp.

Another source of error, where some real knowledge might have been conveyed, is lack of details in matters of every-day essentials. For instance, the directions for passing a catheter, while perhaps plain to one familiar with anatomy, are unintelligible to any nurse that is not a graduate of a training school—a class that would not be in the least benefited by this work. The same is even more true of "Presentations and Positions," which are explained: "By naming the position, we indicate just how a presenting part lies or is turned" Just here, too, we are informed: "The right occipito-illac

posterior (occiput to r. sacro iliac junc.) is not a very common one, but that variety which is described and named as the left occipito-iliac anterior (occiput to left of acetabulum), in which the occiput is directed in front and to the left, is most frequent."

We submit the foregoing as "pearls before swine," since no explanation is offered. One more sample will suffice: "A T bandage may be required;" but nowhere in this volume is there any information as to what such a bandage may be, how it is made, or its mode of application.

The book fairly bristles with expressions occult to the laity, such as: "aseptic," "anesthetic," "pyemia," "asphyxiated," "fomites," "funis," "hypertrophy," "tetanus," "traumatic," "fundus," "saggital," "posterior cul-de-sac," etc., apparently under the supposition they are household words. Beside, the information attempted to be conveyed is pernicious in many ways. such as directing nurses to *prescribe* opium, belladonna, etc. (no doses being given), and astringents; and to remove foreign bodies from the nose and ears of children by means of a *hair-pin*, when all other measures fail.

That the book is vicious in reality, though not in intent, is most patent, and it cannot fail to be productive of harm. It tends to foster the dangers of a "little knowledge" imperfectly acquired; to make of the nurse an itinerant quack; to give her authority for all sorts of experimentation; for meddling at the very moment interference is dangerous; and an excuse for delaying to summon assistance until it is, perhaps, too late.

Notes and News.

Antipyrin Habit.—To the already long list of drugs, the use of which, under proper restrictions, is both beneficial and proper in combating the various ills to which flesh is heir, but whose abuse becomes a curse to humanity, another has recently been added. Scarcely have we learned to properly use antipyrin than the tocsin of alarm must be sounded against its abuse. The recent discovery of its value as a nerve-tonic, places it on the list with morphine, chloral, cocaine, etc., so seductive is its gentle soothing influence upon the over-strained nerves.

Its victims are already found, especially among society women, whose nerves, strung up to a high pitch by the overwhelming demands of a winter season of gaiety, seize eagerly upon anything that will afford relief from the headaches and other disorders arising from prolonged fatigue and overtired nerves. So pleasing is the effect that it is soon used for every trifling ill feeling, until the patient finds herself unable to live without it, and the fascinating "antipyrin-habit" if formed.

Properly used as a nerve-tonic, its effects are admirable, but *abused*, the victim becomes even more hopelessly entangled than the morphine or cocaine victim.

The effects vary with the dose. In large doses it produces complete relaxation with loss of reflex action. In moderate doses, continued, it induces convulsions. As a stimulant its effect is much like that of quinine.—*International Dental Journal*, August, 1889.

Qui Vive, France!—The Dean of the Munich University, having pointed out the advisability of forming a volunteer ambulance corps of students, a committee has been formed, comprising the most celebrated members of the medical faculty in that city, in order to carry out the idea. Professor ANGERER specially observed that on August 18, 1870, no fewer than 18,000 wounded German soldiers were lying on the battle field, and, as we may in future wars expect this number to be greatly increased, the necessity is evident for having a trained body of men to attend to them. It is proposed that the students should go through a six-weeks' course of instruction in the use of antiseptics, wound bandaging, stopping bleeding, and transporting the wounded.

Just Do Your Best.—

The signs is bad when folks commence
A findin' fault with Providence;
And balkin' 'cause the earth don't shake
At ev'ry prancin' step they take.
No man is great till he can see
How less than little he would be
Ef stripped to self, and stark and bare
He hung his sign out anywhere.

My doctern is to lay aside
Contentions, and be satisfied;
Jest do your best, and praise or blame
That follers that, counts just the same.
I've allus noticed great success
Is mixed with troubles, more or less;
And it's the man who does the best
That gits more kicks than all the rest.

JAMES WHITCOMBE RILEY.

Superfœtation.—The following case is reported by Dr. EDGAR W. ROBERTSON in Gaillard's Medical Journal: A woman of 24, the mother of three children, was delivered of a child on January 16, 1889. She is a healthy negress. On June 20, 1889, another child was born. The first child is small, the second one weighing about six or seven pounds at birth. The physician reporting this case states that he has no reason to doubt that the first child was borne by the woman; of the second he is certain. A curious fact in connection with the birth of the first child is, that the woman can neither remember the physician she consulted, nor anything about her nurses. On this account this unique case is probably to be taken *cum grano*.

Quack Advertisements in Religious Newspapers.—At the Centennial General Assembly of the Presbyterian Church, held in Philadelphia, the Committee on Bills and Overtures recommended the adoption of a resolution that the General Assembly, while disclaiming responsibility for, or authority over, religious journals not published under its direction, disapproves "all those advertisements of patent medicines, dishonest in form, fraudulent in substance, or prejudicial to the refinement, modesty, and purity of the home life."—*Memphis Medical Monthly.*

The Canadian Medical Association held, on the 12th and 13th of last month, a most successful meeting at Banff. The meeting was very largely attended, and is said to have been most enjoyable in every way. The United States was represented by Drs. CURRIE and WHITTAKER, of Cincinnati; Dr. BAKER, of Philadelphia; Drs. GIBNEY and BULKLEY, of New York; and Dr. STOCKWELL, of Port Huron. Toronto was decided upon as the next place of meeting.

How Beef Extract is Made.—A man at Colchester has been fined 40 shillings for driving a dying horse with cruelty. The equine was taken into port for transhipment to Antwerp, where, it seems, they boil down old screws and send the results back to English invalids for beef tea. The newspapers have fully explained the process, and now compressed beef, extract of beef, and beef tea, with an Antwerp brand, are a drug in the market.—*Medical Press* (London).

Posture in Parturition.—It is said that the American woman lies upon her back when delivered; the English woman upon her side; the Kaffirs and Otchipwes squat; the Mexican and Spanish women kneel: the French woman prefers a half-sitting position, with the thighs flexed upon the body; women of Egypt stand; the Creek squaw lies on her stomach; the Blackfoot hangs to a pole; and the Apache to a rope.

Mithridatism. — Professor LANKESTER proposes that this new word be admitted to the scientific vocabulary, to signify that immunity from the effects of a poison which is induced by the administration of gradually increased doses. The selection of the word has reference to the fable concerning MITHRIDATES, king of Pontus, who became so charged with the poisons he experimented with that he obtained immunity from them all.—*N. Y. Med. Jour.*

Fatality from Chewing Gum.—The death of a child is reported from the use of chewing-gum. A number of small, round particles of the gum, so hard as to cause perforation of the bowels in several places, were found at the post-mortem.—*Times and Register.*

Changes in the Faculty of the University of Pennsylvania.—Dr. BARTON C. HIRST will occupy the Chair of Obstetrics alone. Dr. DE FOREST WILLARD will be Professor of Orthopædic Surgery. Dr. TYSON, having succeeded to the chair formerly held by Dr. OSLER, who has gone to Johns Hopkins, will in turn be followed by Dr. GUITERAS as Professor of Pathology and Morbid Anotomy.

Medical Education in Japan.—In Japan there are 13 schools of medicine, 1 of dentistry, and 2 of veterinary surgery. The University of Tokyo (the Imperial University) has over 1,200 students, and an average of 100 medical students graduate yearly. In Tokyo alone there are numerous medical societies and over 20 hospitals.

Vaginal Examination.—SCHULTZE points out that it is far better to use two fingers for vaginal examination, not only because the middle finger is longer than the index, but still more because with two sensitive surfaces, the relative position of which can be varied, we can find infinitely more than with one.

Another Martyr to Duty.—Mr. CHARLES BROWN, M. R. C. S. and L. R. C. P., London, one of the Surgeons of St. Thomas' Hospital, died of diphtheria contracted while assisting in the operation of tracheotomy.

Animal Epidemic. — Bucks County (Pa.) farmers complain of diphtheria, which is epidemic and heavily fatal among their horses. Texas fever also has appeared among the cattle.

Dr. DOWLING BENJAMIN, supported the BROWN-SEQUARD theory before the Camden City (N. J.) Medical Society at its last session.

Therapeutic Brevities.

Guaiacol in Tuberculosis.—Guaiacol is considered the medicinally active principle of creasote.

As early as 1876, Bouchard and Gimbert (Gazette hebdomadaire de Médecine et de Chirurgie) proposed the use of creasote in pulmonary tuberculosis Compared with the dubious results gained by other reputed or alleged "specifics for consumption," creasote herein exhibited a certain measure of habitual success, which gradually procured for it quite an extensive application.

Creasote, however, is a complex substance, containing 60-90 per cent. of guaiacol.—with the remainder composed of *creasols and other homologues of various phenols.*—It was, therefore, in accordance with the tendency of Modern Medicine toward the employment of homogeneous substances, wherever possible, that Sahli, of Berne, recommended guaiacol,—as being the true therapeutic agent in creasote,—to be employed in the place of creasote itself!—This proposition immediately met with great

favor; so that, recently, guaiacol has become more and more of a fixture in the therapy of tuberculosis.

Pure guaiacol—*mono-methyl-catechol; Methyl-ether of Pyro-catechin*—$C_6H_4 < \begin{matrix} OH \\ OCH_3 \end{matrix}$ } (1:2)—is a colorless, limpid, refractive, oily liquid, of a peculiar aromatic odor, and specific gravity 1.1171 at 55.4° F. It boils at 393 8° F., is soluble in 200 parts water, and is clearly miscible with alcohol, with ether, and with carbon disulphide. Its alcoholic solution is colored *blue* by the addition of a little ferric chloride, and *green* by a larger addition. One volume of guaiacol, with two of petroleum benzin, forms a *turbid* mixture, which, however, becomes *clear* (59° F.) on the addition of six further volumes of the benzin.—One volume of guaiacol, with two of soda solution, makes a *clear* mixture, soluble in its tenfold volume of water clearly and without coloration.—One volume of guaiacol, with two of potassa solution, solidifies within a short time into a white, crystalline mass.

The use of guaiacol as an anti-tubercular is thus detailed by recent investigators:

A. Nobili (Gazetta degli Ospitali, 1888; 76–77) credits with two distinct powers: both that of *augmenting the organic power of resistance against tuberculous infection*, and that of *destroying the tubercular bacilli*. He prefers it to creasote on account of its being a homogeneous substance (having necessarily a more reliable and uniform mode of action), and, "because creasote very often exhibits a vomitory effect!"

℞.—Guaiacol, 1 gramme [15 grains];
Alcohol, 200 grammes [8 fl. ozs.];
Tinc. gentian, 25 gramme [1. fl. oz.].

At first this mixture is given to the extent of only 5–15 drops, daily, after meals,—best to be taken in wine, broth, or sugared water,—and is easily taken and entails no unpleasant effects. Gradually, the dose may be increased, up to 1, 2, and even 3 grammes per day. All the patients thus treated experienced increase of appetite; the cough, especially at night, is decreased; also, in some cases, fever and the night sweats reduced. Generally, a distinct improvement in the rattling sounds was noted, and the subjective feeling of the patients was markedly elevated.

Dr. Bourget (Korrespondedzblatt Schweizerischer Aerzet,) recommends the administration in larger doses.—In summer, he exhibits it in vinous solution; in winter, in mixture with cod-liver oil. The summer mixture is:

℞.—Guaiacol, 7.5 grammes;
Tinc. cinchona, 20 grammes;
Malaga wine, 1000 grammes.

Of this, 1 tablespoonful is give at every meal in the beginning of the treatment; which dose is gradually increased, up to 2–3 spoonfuls. If, at any time, the medicament be less well borne than usual, its form is to be changed to that of an enema, as follows:

℞.—Guaiacol, 2 grammes;
Sweet almond oil, 20 grammes;
Gum arabic, 10 grammes;
Distilled water, 950 grammes;
M.—For 4 enemas.

This should be made to go as high up as possible, being administered through a flexible tube, with the patient lying on his side; sometimes it may be advantageously preceded by a water injection. The treatment *per os* and *per rectum* may be alternatively combined,—the guaiacol wine being given one fortnight, and the guaiacol enemas the next. For the winter treatment:

℞.—Guaiacol, 3 grammes;
Cod-liver oil, 200 grammes.

One tablespoonful at each principal meal, combined with outward application, by inunction of the following:

℞.—Creasote, 20 grammes;
Cod-liver oil, 200 grammes.

This latter is applied to chest, back, and armpits, at bedtime, whereupon the patient should lie well covered up to the throat.—The patient should furthermore wear, as constantly as possible, by night and day, a nasal aspirator charged with 2–3 drops of creasote. (This apparatus, if not readily procurable, may at need be replaced by pieces of rubber tubing, of the width of the nares, and nearly an inch in length, into which loose rolls of filtering-paper saturated with creasote are introduced.)

The treatment, as above indicated according to Dr. Bourget, is to be continued for 3–4 months; during which time, however, the tonic regimen is not to be neglected.—*Merck's Bulletin*, August, 1889.

Ergot in Childbed.—Dr. Pinzoni has made some interesting clinical experiments in order to determine, with something like precision, the value of ergot in childbed. He administered systematically to 91 lying-in patients, generally in the form of about 2 grammes of the powder daily. Seventy-nine similar cases were treated without ergot. After comparing the series, he came to the following conclusions: Ergot has little or no influence on the temperature; at the most a slight rise is observed. It hastens the pulse a little, yet has no marked influence on the physiological slackening of the pulse observed during the first days after delivery. The physiological increase in the secretion of urine during the first days, is favored by ergot. The involution of the uterus, according to Dr. Pinzoni's researches, is either totally uninfluenced by ergot, or slightly retarded. The escape of the lochia remains normal when that drug is given; but clots, as universal experience has proved, are more readily expelled. The lochia seldom smells fœtid when the ergot is taken. Ergot delays the after-pains in primiparæ, and lessens them when they have already commenced. The secretion of milk is retarded and lessened by ergot, and sometimes completely suppressed. Ergot seems, in the belief of Dr. Pinzoni, to be a prophylactic against puerperal fever, and indirect antiseptic agent. When infection has already taken place, ergot appears, on the other hand, to hasten the entrance of the virus into the circulation.—*Bollettino delle Scienze Med.*

Sedative in Hystero-Mania.—An interesting paper on hystero mania is contributed to the Maryland Medical Journal, by Dr. Alex. L.

Hodgdon. He states the following sedative has given him the best results when intense excitement is present:

℞ Ext. cimicifug. fl., ʒ iss.
Ext. vibur. prunifol. fl., ʒ i.
Ext. conii, fl., ʒ i.
Tinct. cannab. Indic., ʒ iss.
Syrup, ʒ x.

M. et Sig. Two teaspoonfuls three times a day; and see that its components are thoroughly mixed before exhibiting.

This must be administered with caution as the extracts of hemp and of hemlock are of uncertain strength. The tincture of Indian hemp was made from English extract,—one drachm to two ounces of alcohol.

Resorcin in Erysipelas.—Dr. A. Himmelfarb says that in a number of cases of erysipelas in recently vaccinated infants, he painted the affected parts, and a healthy zone around them, with the following solution, a complete recovery taking place in 24 hours:

℞ Resorcini puriss, ʒ ss.
Glycerini, ʒ j.

S. To paint (by means of hair pencil) every hour.—*Novosti Terapii* (Moscow), No. 20, 1889.

Sunflower in Malarial Fevers.—In the Meditzina, No. 21, 1889, p. 7. Dr. S. Kazatchkoff emphatically draws attention to the common sunflower (*Helianthus annuus*, Russ. *podsolnetchnik*) as an excellent and cheap substitute for quinine in the treatment of malarial fevers of all possible forms. The remedy has been from time immemorial used for this purpose in the Russian, as well as Persian and Turkish popular medicine, and that mostly after the following plan: A flask is filled up loosely with finely-cut dry or recent flowers and stems, and then with *vodka* (whiskey). The (hermetically corked) vessel is left to stand under sun rays, or at some warm place, for two or three days. The tincture is then ready for use, and should be given as a small wineglassful (a liqueur glassful) three times a day. In recent cases, complete and permanent cure ensues in from one to three days; in most obstinate and inveterate—not later than a week. The remedy proved successful even in such cases where quinine and other anti-malarial means failed. About ten years ago the sunflower was similarly recommended (Meditzinskoie Obozrenie, Sept., 1879) by Dr. Peter Filatoff, of Saransk.—*St. Louis Med. Jour.*, Sept., 1889.

Petiveria Alliazea.—This American plant possesses antispasmodic and emmenagogue properties, owing its virtues to a volatile oil of pronounced odor, which is communicated to the milk of cows feeding upon it. In the Antilles, the root is employed in toothache on account of its sharpness, and the negro women use it in the form of a filtered decoction to produce abortion. It also possesses diuretic properties. In Porto Rico, a decoction of the root is given to women immediately after childbirth, to guard against possible complication. —*El Siglo Medico.*

Rubidium is Coming.—Professor Laufenauer publishes, in the Therap. Monatsch., a preliminary note on rubidium-ammonium-bromide. The double bromide was used as being cheaper than the rubidium bromide. It consists of $RbBr_3(NH_4Br)$, representing in 100 parts, 36 parts RbBr and 64 NH_4Br. The author has studied its epileptic action in seventeen cases, the doses given varying from 1 drachm to 2 drachms; the effect was similar to that produced by potassium bromide, but more intense. The hypnotic action was very satisfactory. On the whole it acts very like the other alkaline bromides, but more decidedly. The author reserves to himself the priority of using similar compounds of casium.

Dr. A. Bowie reports two cases of cardiac failure in which death seemed imminent, that were speedily relieved by small doses of the tincture of nux vomica every half hour, for four doses, then every hour. He considers it the most valuable remedy that we have.—*Lancet* (London).

Digitalis in Pneumonia.—At the recent Therapeutical Congress, in Paris, M. Petrescii, of Bucharest, claimed that pneumonia could be aborted in its early stages by giving large doses of digitalis, *e. g.*, four to eight grammes of the leaves in infusion daily.

Medical Progress.

On a New Method for the Radical Cure of Varicocele.—In my opinion, no operation for the cure of long varicoceles is perfect unless it includes some proceeding planned deliberately for attaining an immediate and permanent shortening of the cord, with the object of relieving the patient from the necessity of wearing some form of external support for a long period, as well as insuring an immediate freedom from the discomfort of the dependent testis, which is not only inconvenient in itself, but tends to the recurrence of various symptoms unless the support of a proper suspender be continually afforded. With the object of deliberately effecting this direct result, I have been in the habit for some time of performing the operation described below, which may be adopted not only in cases of great elongation of the cord, but in most instances in which the abnormally low position of the testis is at all marked; in fact, whenever shortening of the cord is likely to be beneficial. In severity, the proceeding is exactly on a par with the ordinary open operations, but convalescence is more rapid, and the ultimate result undoubtedly better. The precise extent of the varicocele which it is desirable to resect in any given case, is best determined by placing the patient in the standing position, and roughly estimating with the eye, or, better still, by measuring with a tape, the degree of elongation of the cord: for instance, should the testis be three inches lower than normal, then certainly not less than three inches of the veins should be included between the two ligatures, as it will be desirable to excise at least two inches and a half.

Details of the operation for the radical cure of varicocele by excision of a portion of the veins and immediate shortening of the cord.—The patient having been anæsthetised, the veins are made prominent and put somewhat on the stretch by grasping the varicocele between the fingers and thumb of the left hand, care being taken that the vas deferens is pressed back out of the way of harm. Through the skin, over the veins thus rendered prominent, an incision is made which in no case need exceed an inch and a half in length. One or two touches of the scalpel will now suffice, the veins being pressed well forward to expose the thin fascia immediately surrounding the varicocele, through which the vessels can be clearly seen. The knife is now laid aside, the veins not having been actually denuded. By means of an aneurysm needle or eyed probe, a thoroughly carbolized tendon is passed round the fascia referred to, with its included veins, and drawn down to a point as near the testis as is thought proper; it is then securely tied, the ends being left long. The varicocele above the ligature, together with its sheath, is then freed from the surrounding parts by a few sweeps of the finger, for a distance sufficient to allow of the length previously decided upon as approximate for excision to be drawn out of the wound. A second tendon is now passed around the upper end of the freed veins, and tied in a single knot only, which is kept tight by an assistant. The portion of the varicocele included between the ligatures is divided above and below, about a quarter of an inch (not less) from the corresponding ligature, and removed. The upper ligature is then finally tightened and its knotting completed, the ends being left long as before. The wound having been freely irrigated with warm sublimate solution, and all bleeding (be it ever so slight) arrested, the cut ends of the stumps left by the division of the varicocele are brought together and retained in apposition by knotting the ends of the upper ligature to those of the lower, thus at once raising the testis to about its natural level. The ligature ends are now cut off quite short; and the operation is completed. The edges of the skin fall together, there is no need for either suture or drainage tube, and all that remains necessary is the careful application of the antiseptic dressing. By leaving the sheath of fascia which immediately surrounds the varicocele intact, and including it, with the veins, in the ligature, two objects are attained: (1) the certainty of passing the tendon around all the affected vessels, as none of these ever lie outside the fascia; and (2) the prevention of any material chance of recurrence of the abnormally dependent position of the testicle, which is probable if the veins are actually denuded before the ligatures are applied and the stumps brought together in the manner described, since it is manifest that the weight of the testis would tend to drag the veins considerably out from the sheath above whereas this fascia, if included in the ligatures, not only obviates this tendency, but in fact also carries the weight of the dependent organ without stretching to any appreciable extent. The postponement of the final tightening and knotting of the upper ligature until after the division of the veins, is a point of importance, as there is some risk if the tying be completed before the division that the shrinking of the veins which follows the escape of blood contained in them, may result in the ligature becoming sufficiently loose to allow of an oozing of blood into the wound, and indeed may possibly, as I have once seen, permit the stump to escape from the ligature altogether, in which case the primary object of this particular operation would be defeated. Every care must be taken to avoid any possibility of oozing into the parts around the stumps, as the formation of a clot in the wound delays the healing and greatly prolongs the convalescence. Although the tying together of the ligature in the way mentioned is always, so far as I have seen, sufficient to keep the stumps in contact, a fine gut suture may, if thought necessary, be passed through the extreme edges of the cut surfaces of the stumps on the side remote from the ligature knots. Very accurate apposition is not, however, absolutely necessary, as the union of the parts is effected through the medium of the callus which is thrown out around them, rather than by any direct adhesion of the cut surfaces. It is hardly needful to state that all manipulation of the veins must be confined to the parts lying between the two ligatures, as any injury to the vessels beyond the constricted points, whether above or below, is an element of risk. If the details of this procedure as described above are carefully carried out, the subsequent course of the case is simple and uninterrupted. In four or five days the wound has, as a rule, healed, and the approximated stumps are surrounded by a mass of callus. At the end of a week the patient may usually be allowed out of bed, and, although swelling about the cord does not entirely disappear for perhaps a month, any ordinary occupation may be resumed in 14 days or thereabouts. Upon the absorption of the callus, nothing abnormal is perceptible to the touch but a very slight circumscribed hardness, which remains permanent, around the ligature knots. A suspender is worn up to the time of the disappearance of the swelling, and then finally discarded, leaving the testis well braced up in its natural position, with the scrotum accurately adapted to it, no matter how long and flabby that structure may have previously been. Little or no pain follows the operation, but during the first fortnight there may be some œdema of the scrotum, and the testis is generally slightly tender. I have seen no real orchitis, nor has there been, in my cases, suppuration about the wound or any constitutional disturbance. I am not acquainted with another method so rapidly producing a "cure" which may fairly be called "radical." With a view to obviating the abnormally dependent position of the testis in varicocele by the provision of a natural suspender, the operation of shortening the scrotum by excising a portion of the skin and dartos was at one time extensively practiced in this country, where it has now very properly fallen into disuse. As, however, it is still to some extent adopted on the Continent and in America, a word of comment is necessary. The proceeding is useless in practice, and unsound in theory, since it is based on an entire misapprehension as to the functional relation of the scrotum to the testes—a point of some interest, concerning which it is only necessary, for my present purpose, to say that to whatever degree the scrotum may be diminished in size by operation, it will again rapidly

become stretched until a length is acquired which will be determined by the lowest point attainable by the testis as it hangs at the end of the elongated cord. On the other hand, if the testicle is raised by shortening the cord, the scrotum will, be it ever so long and flaccid, spontaneously contract and accurately adapt itself to the testicle in its new position.—W. H. BENNETT, F. R. C. S., Surgeon to St. George's Hospital, London, in *Lancet*.

CORSETS.—The Medical Press, London, says, "We have always been taught that costal, as opposed to abdominal, breathing was peculiar to the female, but observation seems to show that it is a purely artificial state of things brought about by mechanical impediments to free displacement of the viscera. For example, in Chinese women, whose garments do not constrict the waist in the slightest degree, and whose hips are not made to support the weight of heavy garments, the exaggerated chest respiration which prevails in our own country-women is unknown, and in all, abdominal breathing is as well marked as in males leading sedentary lives. Among the American Indians, whose women lead active lives in the most primitive of costumes, only a difference of from one and a half to two inches was found between the waist measure of females and males respectively, and these results were confirmed by the examination of the women of other races. Again, abdominal respiration was found in a Scotch woman forty five years of age, unmarried, who had never worn a corset. When a man was tightly laced in a corset the breathing became of almost as pure a costal type as in a corset-wearing female. Among the lower animals, such as dogs and cows, respiration is of the same type in both sexes."

The foregoing tempts us to reproduce the remarks of Prof. J. A. C. Skene, of Brooklyn, N. Y., as embodied in his forthcoming book, "Education and Culture as Correlated to the Health and Diseases of Women."*

"During the transition from girl- to womanhood—the time when a little more care is necessary than before or after—clothing should be faithfully attended to. It is rather a strange fashion, having little sense in it, which requires girls at that time to add to the weight of their skirts and put on corsets. True, there is something in the mental condition which prompts the girl to seek the robes of maturity; but there is nothing in her physical state which requires additional weight to her skirts and severe constriction of her waist by tight clothes. Corsets, which have been the subject of condemnation by all reformers in dress, are still worn by women, and I presume that they ever will be. The persistent use of this article has led me to study the subject, and I have come to the conclusion that this fiend of the wardrobe is not quite so bad as it is painted. Corsets, if properly made, and worn as they ought to be, are as harmless as any portion of the clothing worn about the body. It is the abuse of the article that should be condemned. This article of clothing has been so long worn that there has been a demand established for it. The mammary glands of the women of the most mature civilization require support, because the deep fascia which is the natural support of these glands is imperfectly developed, and has been so for so many generations that the imperfect state is transmitted from mother to daughter. The resulting flaccid or pendulous state of the breasts, therefore, requires artificial support, and this is best supplied in a well-fitting corset. This has been overlooked by those who would institute immediate reform and at once give up this article of clothing entirely. The fact is, it would take several generations to cultivate a form and figure which would admit of dispensing with corsets in mature womanhood. Take the women of our own times as they are, and it will be found that they will be more comfortable and just as healthful with the proper use of corsets. The cruel, absurd habit of lacing corsets, need not be alluded to. There is, however, a danger which is not generally known even to those who desire to dress rationally; and that is, that *the waist will contract under very slight but long-continued pressure*. The corset that was snug to day will be loose a week hence, and *vice versa*. Great care, then, should be exercised in keeping corsets loose, especially in growing young women. I have also thought that if elastic could be introduced into the mechanism of the corset, which would admit of freer movement of the body, at the same time giving the required support to the mammary glands and the skirt, it would be an improvement."

*Pub., Geo. S. Davis, Leisure Library Series No. IV Detroit.

THE DISINFECTION OF INTESTINAL DISCHARGES.—In the intestinal evacuations of typhus, dysenteric, and cholera patients, Prof. Uffelmann instituted a considerable number of experiments with various substances, with the following results:

1. Equal parts of sulphuric acid and water. Certain destruction of all germs after two hours.

2. Sulphuric acid 1 part, to 2 parts of water. Destruction of all germs after six hours.

3. Hydrochloric acid and water, equal volumes. Destruction of all germs after 12 hours.

4. Hydrochloric acid 1, to water 2. Almost certain destruction of all germs after 12, and certain destruction after 14 hours.

5. Carbolic acid. After one hour, numerous colonies continued to develop, as also individual typhus colonies after 24 hours, greatly isolated, and no typhus colonies.

6. Creolin in 12 ½ per cent. emulsion. After 24 hours, individual colonies continued to develop, but none of typhus or of cholera bacilli.

7. Potash lye with water, equal parts. After acting for an hour, individual colonies continued to grow; none after six hours.

8. Caustic lime, 0.1 grammes, and feces. After one hour, and even after 24 hours, numerous colonies continued to grow, also several of the typhus bacillus; none of the cholera bacillus.

Caustic lime, 0.2 grammes, and feces. Individual colonies continued to grow after 24 hours—none, however, containing the typhus or the cholera bacillus.

Milk of lime, 12½ per cent., 12½ parts to 1 part of feces. Destroyed the Eberth bacillus within two hours.

9. Non acid sublimate solution, 2 per 1,000.

—After acting for a quarter of an hour, a tolerably large number of colonies continued to grow; isolated colonies with the typhus, but not the cholera bacillus. After one-half hour, fewer than after one-fourth hour. After 24 hours, very few or no colonies, and none with the typhus or cholera bacillus.

10. Solution of sublimate, acidulated with hydrochloric acid, 2:1000.—Many less colonies developed than after addition of the un-acidulated solution. After one-quarter hour, only isolated colonies observed; none of the typhus or cholera bacillus, and after 24 hours, as a rule, none at all.

11. Boiling water.—Even when 8 parts of boiling water were added to 1 part of fæces, it did not always disinfect.—*Deutsche Medizinal Zeitung*, Sept. 5, 1889.

[From the foregoing it will be observed that the mineral acids are the most efficacious; next the acidulated sublimate solution, and the potash lye diluted with an equal volume of water. Even better, and much more convenient, are Bernay's antiseptic tablets, as prepared by Messrs. Parke, Davis & Co., containing each 1½ grains of mercuric bichloride, and $\frac{57}{100}$ grain of acid citric.—ED.]

PARASITIC FŒTUS IN THE MULTIPAROUS WOMAN.—Early in 1888, we published an account of Laloo, ths Indian boy who bears a parasitic fœtus attached to his epigastrium, consisting chiefly of the four extremities and nates. Messrs. Sutton and Shattock reported the case in the Pathological Transactions for the same year. Another case of parasitic fœtus is described by Dr. E. Bugnoin in the Revue Medicale de la Suisse Romande for June, 1889. The patient, whose photogravure adorns the paper, is a well-developed young woman with regular features. She was born in 1869. In front of the pubes is attached a rudimentary pelvis bearing two long, deformed, and partly atrophied lower extremities. Rudimentary nipples were found in the integument of the autosites's groin on each side of the attachment of the pedicle of the parasite. There was no signs of any external genitals on the parasite. The vulvar orifice of the autosite is anteriorly encroached upon by the parasite, and is pushed backwards so that the perineum is reduced to a thin septum. The autosite, Louise L., of Reims, walks well; the monstrosity shows but little. She married three months before her fifteenth birthday. In March, 1885, her first, and in December, 1888, her second child was born. She was suckling the latter when Dr. Bugnoin examined her. He described her as a dipygus parasiticus, or more strictly as a *pubimèle* or *pygomèle pubien*. She is known as the *dame à quatre jambes*, and has been on show for some time, after the fashion of most monsters.—*British. Med. Journal*, July 20.

THE TRANSMISSION OF GONORRHŒA AS AN INDICTABLE OFFENSE.—A man was charged with rape by a 15 year old girl at Steinamanger, but at the trial he was declared not guilty of the charge, as no force was employed. The testimony showed, however, that at the date of intercourse the man was suffering with gonorrhœa, and that afterwards the girl also had gonorrhœa, and on this basis the prisoner was charged with inflicting severe bodily injury upon the girl, was found guilty, and sentenced to one month's imprisonment. The two higher courts approved this, but thougbt the punishment was too light; one court lengthened the term to six months; the other and highest authority thought it was still not enough, and increased the punishment to one year.—*Deutsche Med. Zietung.*

TRANSPLANTATION OF NERVE.—The operation of transplanting a part of a nerve from the rabbit to a man, has been successfully performed in Vienna, upon von Fleischl, of the University. The professor had lost his thumb and incurred neuroma, and was suffering much pain. A piece six centimetres long was taken from a rabbit's thigh so as to include the natural bifurcation of the main trunk. It was secured to the stump of the nerve in the patient's arm, and the ends of the branches to the nerve terminations that remained in the fingers, so as to restore the interrupted communication. All appeared satisfactory at the end of two months.—*Journal of Physiology.*

THE TREATMENT OF INGROWING NAIL WITH TIN FOIL.—Dr. Theodore Clemens recommends the following treatment: After thoroughly cleansing the diseased parts with soap and water, and then drying, the edges of the nail are covered with one or two layers of tin foil. The strips of tin foil are held in position by a thin layer of yellow wax, care being taken to place the strips on all places where the nail is in contact with the flesh. This packing need only be renewed two or three times during the first few weeks, the procedure being simple, painless, and easily carried out by the patient.—*International Journal of Surgery.*

TUBERCULOUS INFECTION THROUGH EAR-RINGS.—A case is related in the Wiener medizinische Presse, of a young girl, fourteen years of age, of a perfectly healthy family, who wore ear-rings left to her by a friend who died of pulmonary tuberculosis. Soon ulcers appeared on the lobes of both ears, the cervical lymph-nodules became swollen, and percussion revealed dullness at the apex of the left lung. Tubercle bacilli were found in the ulcers and in the sputa. It was presumed that the ear-rings were the agents of infection.—*N. Y. Medical Record.*

STRYCHNINE POISONING.—Dr. Lovett has discovered by experiment on frogs, the important fact that in cases of strychnine poisoning, a larger portion of the strychnine is stored up in the spinal cord than is contained in the brain, liver, stomach, and muscles together. The importance of this as a medico-legal point is self evident.—*Journal of Physiology.*

PUS IN URINE.—To detect pus in urine, drop enough tincture of guaiac into a specimen to produce a milky appearance; then heat a few moments. The pus will produce a blue tint.—*National Druggist.*

The Medical Age.

Vol. VII. DETROIT, OCT. 25, 1889. No. 20

Original Articles.

NOTES ON THE USEFULNESS OF SHOULDER STRAPS, SHOULDER BRACES, AND HOC GENUS OMNE, FOR ROUND SHOULDERS, STOOPING, AND INCIPIENT LATERAL CURVATURE OF THE SPINE.*

BY BERNARD ROTH, F. R. C. S., ENGLAND.

When we find an able surgeon like Mr. WALSHAM, surgeon in charge of the Orthopædic Department of St. Bartholomew's Hospital, London, not only advocating shoulder braces, but even inventing a new one still more injurious than most of its predecessors because of its great strength (from being manufactured of solid rubber bandage) one feels inclined to rub one's eyes, and to ask whether scientific orthopædic surgery is really advancing, or whether we have gone back half a century or more.

JOHN SHAW, that enlightened and able author of a more rational treatment of lateral curvature, whose works I have read again and again with ever-increasing pleasure and profit, criticised shoulder-straps as follows: "The effect which this instrument (shoulder-brace, or common back-collar) produces in ordinary cases may be easily comprehended. If the scapulæ be brought close to the spine by the straps of the brace, and kept constantly so, there can be no use for the several strong muscles which pass from the spine to the scapulæ. They must consequently waste and become nearly useless, while those on the fore-part of the chest, being excited to resist the straps, will become increased in power; and hence, when the brace is taken off, not only will the shoulders fall forward as in a delicate person, but the muscles on the fore-part of the chest will predominate over those by which the scapulæ should be held back, and *pull* the shoulders forward."

This was written upwards of sixty years ago, and is so complete and simple a refutation of any supposed efficacy of shoulder-straps for stooping habits, that I have little to add to JOHN SHAW'S scientific common-sense.

I have observed in numerous instances where shoulder braces have been worn for several months or longer, and where from misplaced perseverance and severity they have been worn extra-tightly, that the unfortunate wearer has tried to obtain relief from the excessive pressure of the straps over the coracoid process and adjacent clavicle on each side, by throwing the whole upper trunk backwards by undue arching of the loins, with the result of producing severe lumbar lordosis in addition to the dorsal cyphosis for which the apparatus was being worn. I am quite aware that the dorsal cyphosis is generally accompanied by compensatory lumbar lordosis; but in these cases to which I refer, the lumbar hollow is much more severe than usual, and causes an exaggerated thrusting forwards and prominence of the abdomen. Of course I am referring to the cyphosis of muscular debility, and not to that due to spinal caries. In spite of these facts, ninety-nine out of one hundred medical men of the present day are in the habit, not only of allowing, but even of advising patients to wear these instruments of torture. I understand that large fortunes are being made by the sale of these popular "American" and other shoulder-braces which are so largely advertised at the present time.

The only way in which shoulder-straps might be worn with benefit (not that I ever recommend them) is well illustrated by the following anecdote which is also culled from good old JOHN SHAW. An eminent surgeon was consulted by a gentleman who became one of our first tragedians, as to the best mode of correcting a stoop which he had acquired. The surgeon told him that neither stays nor straps would do him any essential good, and that the only method of succeeding was to recollect to keep his shoulders braced back by a voluntary effort. But the tragedian replied that this he could not do, as his mind was otherwise occupied. The surgeon then told him that he could give him no further assistance. Shortly after this conversation, the actor ordered his tailor to make a coat of the finest Kerseymere, so as to fit him very tightly when his shoulders were thrown back. Whenever his shoulders fell forward, he was reminded, by a pinch under the arms, that his coat cost him six guineas, and that it was made of very fragile material; being thus forced for the sake of his fine coat to keep his shoulders back, he soon cured himself of the stoop. He then showed

* Read at the third annual meeting of the American Orthopædic Association, Boston, Mass., Sept. 19, 1889.

himself again to the surgeon, who ever afterwards, when consulted whether young ladies should wear shoulder-straps, permitted them, on condition that they were made of fine muslin or valuable silk, for tearing which there should be a forfeit.

I have not referred to the Therapeutics of Round Shoulders, etc., because my articles on "Lateral Curvature," "Antero-posterior Curvature," etc., in Heath's "Dictionary of Practical Surgery," will enable any surgeon who follows the lines of treatment there indicated, to cure every case of stoop that presents itself, in a few weeks, provided he meets with the willing co-operation of the patient.

My pleasure in acceding to Dr. GIBNEY'S request to contribute a paper to this meeting of the National Orthopædic Association of the United States of America, will be increased if I am able to convince some of the members that shoulder-straps and braces are not only useless, but also injurious when prescribed for weak backs.

NOCTURNAL INCONTINENCE OF URINE IN CHILDREN.

BY E. P. HURD, M. D.

Numerous theories have been broached to account for this affection.

OLLIVIER thinks that in many cases neither bladder or urethra can be incriminated, for where children can be made to urinate before retiring, yet two hours later they may wet the bed; further, he claims, the quantity of urine contained in the bladder does not make the least difference. As the children frequently appear robust, it is hard to believe that there is any muscular weakness.

He believes the trouble is chiefly nervous, for out of thirty-six cases, two were epileptic, one choreic, one feeble minded, nineteen with inherited neurotic tendencies (hysterical epileptic, insane, alcoholic, etc.), while only twelve presented nothing in antecedents to afford light. In three other cases incontinence existed in one along with nightly terrors, and in the other two was due unmistakably to laziness. In another group of four cases, three-fourths were manifestly due to local causes—phimosis with balano-posthitis, vulvitis, uric gravel, ascarides of the rectum. Of the total number under his observation, a majority were of nervous origin.

TROUSSEAU had a somewhat similar experience as he upon one occasion wrote: "Incontinence of semen succeeds, in a good number of cases of incontinence of urine in the adolescent, and impotence accompanies this incontinence of sperm; crowning the whole, epilepsy, or mental alienation, terminates this morbid series, and demonstrates a nervous nature."

The classical methods of treatment, viz: Waking the subject out of sleep and obliging to urinate; dry diet—the patient drinking nothing at night; compelling to sleep on the side, etc.; all have availed little in the way of relief. Nevertheless, children often outgrow the habit, as they do nocturnal terrors and other neurotic complaints. It is only where phimosis is the cause, that circumcision can effect a cure.

Generally, it is necessary to diminish the muscular elements which contribute to the expulsion of urine, at the same time increasing the action of those that retain it. These are indications, however, more easily formulated than met. Trousseau's combination of belladonna and strychnia answers well in a certain percentage of cases, but very frequently is wholly unreliable. Ergot and bromides, too, seemingly a rational combination, are not to be depended upon, though sometimes favorable results are attained. Undoubtedly electricity gives the best guarantee of success when employed by Guyon's method, which demands a peculiar sound with a metallic bulbous extremity. This is connected with a Galvanic battery, the other pole being placed on the pubes, or perineum. The sound is introduced before the passage of the current; is made first to enter the bladder; then drawn out a little, and again introduced. In this way the current is applied to the urethra and neck of the bladder. It is needless to say that the commencing current should be very weak, though later on the strength may be increased It is, of course, only applicable to cases of nervous origin. Usually from twelve to fifteen sèances are necessary to effect a cure.

PREGNANCY AND BRIGHT'S DISEASE.

BY DR. E. LECORCHE, PARIS, FRANCE.

I have given as an opinion, that pregnancy is seldom, if ever, a direct cause of nephritis; but merely an aggravation of a previous nephritis, the cause of which must be found in the antecedents of the patient. The following case is representative:

Patient aged twenty-five years. About the seventh month of pregnancy her legs became swollen; and albumen was detected in the urine, which was scanty and of a density of 103.2°. At the end of several days the anasarca became general. During the first months of pregnancy, she had repeated vomitings, of a glairy watery mucous. Fifteen months since, had a moderate attack of typhoid fever. Six weeks after recovery, legs became swollen, and fifteen days later spots of purpura appeared on the inferior extremities. Urine was not analysed, but she says it was of a reddish color. Œdema disappeared at the end of a month, coincidently with an abundant polyuria.

There is no puffiness of the face, and œdema

is limited to the legs, which are very much swollen, although she has been restricted to milk diet for a fortnight. Three quarts of urine are passed in twenty-four hours, and the quantity of albumen has fallen from 7 to 3 grammes per 1000. Heart, somewhat enlarged; beatings tumultuous, but with no murmur. Was delivered at full term, without accident, of a pair of twins, when, eight days later, the œdema disappeared completely, though the albuminuria persisted with a slight amount of polyuria. Three weeks afterward, she voided two quarts of limpid urine per day, containing 1,75 grammes of albumen per 1000.

Case 2.—V., aged 22 years; three years ago, *erythema nodosum*, which lasted six weeks—no other disease. Eight months since confined; pregnancy and accouchement normal. At the commencement of pregnancy, her ankles were a little swollen, but the œdema disappeared wholly at the end of a week. Urine not examined. Six weeks ago ankles again swelled, extending into the legs. No other symptoms; no nervous, ocular, or respiratory troubles; did not remark any modification in urine.* At that time there was considerable puffiness, extending to the hips, but none of face. Heart and pulse normal; urine clear, but by test gave 4 grammes of albumen to the litre. Milk diet. At the end of a fortnight, the œdema had completely disappeared, and patient demanded her discharge.

Case 3.—M., aged 20 years; had scarlet fever at the age of seven, abundant epistaxis following. Does not remember whether she had swelling of the lower extremities. Pregnant at 18 years; at the ninth month, attacks of eclampsia; labor provoked, when convulsions ceased; albumen in the urine; no œdema.

Patient remained five months in the hospital; complained of pains in the loins and headache; vision dim in the left eye. Wet-caps and two cauteries to the lumbar region.

Since discharge her feet swell a little when fatigued. In the morning, she often has the eye-lids and features puffed. Continual headache. She now makes great quantities of urine, and gets up once or twice every night.

The last eight days, she feels more sick; has lost strength; is without appetite; headache more severe; always a mist before the eyes, more marked on the left. Pains in the loins, especially on the right. No signs of hypertrophy of the heart.

At the time of admission, the quantity of urine was 800 cubic centimetres per day, with 1.50 gramme of albumen per 1000. Under the influence of milk and rest in bed, the albumen disappeared, and at the end of a month she went out, at which time she was passing two quarts of non-albuminous urine per diem. The lumbar pain still persists, as well as the ocular disorder.

In conclusion, I believe pregnancy is not, properly speaking, a cause of chronic nephritis, but it appears to act by aggravating a pre-existent nephritis. In favoring the fatty infiltration of the epitheliums in a kidney whose functions are already defective, pregnancy interferes with secretory action, and predisposes to uræmic troubles. By the modifications which it imposes on the blood crasis, by the indisputable dilating action which it exercises on the heart, it facilitates the appearance of the anasarca. Thus we explain the temporary gravity which Bright's disease, generally latent before conception, takes on under the influence of gestation.

REFLEX INFLAMMATION OF THE NOSE AND THROAT.*

BY E. L. SIVERS, M. D., FORT WAYNE, INDIANA.

With our present knowledge of rhinal affections, the fact cannot be disputed that many of the diseases of the upper air passages are dependent upon unhealthy and unnatural conditions of other portions of the body. Several recent cases of acute and subacute laryngitis have forced this subject to be seriously considered by me. No cause for one case of very severe acute laryngitis with œdema could be found, unless we ascribe it to dyspepsia, or the patient's excessive nervous temperament. Another case of laryngitis with aphonia, which lasted two weeks, undoubtedly arose from a deflected septum and hypertrophy of the inferior turbinated bone. I had another case which I ascribed to rheumatism, and still another in a middle aged man, a perfect specimen of physical manhood to look at, who had been suffering with chronic laryngitis, and who could not speak above a whisper for two years. On examination, he was found to have several pile tumors with an irritable rectum, although the parts were several feet distant from each other, following the mucous surfaces. I found in restoring the latter to its normal condition the former was speedily cured.

Dr. McKENZIE, of Baltimore, covers the subject very completely when he says: "Anything that impairs the general health, anything that interferes with the circulation, or impairs the constituents of the blood, anything that retards the process of digestion or assimilation of food, anything that causes a hypersensitive condition of the vaso-motor nervous system, reacts upon the upper air passages and other organs of the body, and, all things being equal, predisposes to catarrhal affections of the former."

Very few, I think, appreciate the full force of this. We all recognize the fact that sudden

* Read at the seventh annual meeting of the American Rhinological Association, held in Chicago, Oct. 11, 1889.

changes of temperature cause a majority of our rhino-pharyngeal inflammations. Why should not the subjection of other portions of the body to the influences of heat and cold produce disease within themselves and reflect it to the mucous surfaces of the nose and throat?

In a great many of our eruptive diseases and essential fevers, we have a profuse secretion from the nasal and pharyngeal mucous membranes. Are they not reflex conditions? And nervous cough, is it not a kindred disease?

How frequently asthmas are cured by the removal of posterior hypertrophies or polypi. The sudden suppression of a cutaneous rash, producing coryza, can only be explained by its being a reflex condition. Certain diseases of the nervous system manifest themselves frequently by inflammation and hyperæsthetic conditions of the mucous membranes of the upper air passages.

In the treatment of these conditions, we must not forget that they are secondary, and the great secret of success lies in the fact that you must recognize the primary disease which may be both difficult and remote. After having successfully combated your primary lesion, you can then hope for success in the treatment of the naso-pharyngeal inflammation.

As our subject is reflex inflammations, we must not lose sight of the fact that they all begin as hyperæmias, and from the persistence of this condition or congestion we have the true inflammation with all its regular attendents, and you are all familiar with the different stages and degrees. "Cleanliness is next to Godliness," and it applies well in the successful treatment of the nose and throat.

As a cleansing agent, I prefer alkaline solutions as used by the Philadelphia Throat Hospital, unless there is a great amount of fœtor. Then I add to this same solution a few drops of carbolic acid, or use Dobell's solution. This I follow with a soothing application. I find very little need for strong astringents or caustics. I find Faradic electricity useful in atonic conditions, using it as a stimulant to the mucous surfaces.

Finally I must call your attention to the constitutional treatment. Under no circumstances must it be neglected, for as you improve the general condition of your patient, so will your local ailment progress successfully towards recovery.

CLINICAL NOTES.

THE MANAGEMENT OF RHEUMATIC FEVER.

Dr. O. W. Braymer, of Camden, New Jersey, writes:

I have tried nearly all the plans authorized for the treatment of rheumatic fever, with varying degrees of success, but have found nothing that yields so good results in my hands as cascara sagrada in combination with salicylate of soda.

Of course, individuals possess peculiarities that demand varying conditions of treatment, but in the main my plan has been the same.

First, surroundings have much to do with this disease. The temperature of the patient's room should be kept at as near 70° F. as possible, and this, with warm flannel coverings and proper ventilation, is the chief thing to occupy attention. Next, I pay strict attention to diet, restricting as far as possible to milk, in any event excluding animal foods, and allowing only an alkaline mineral water to quench thirst. The joints also are kept as nearly as possible immovable, and carefully protected from the atmosphere, but no local applications other than warm flannels employed, unless—as is sometimes the case—the reverse is found necessary in order to please the patient.

Formerly, in this disease, I was accustomed to administer small doses of morphia to control pain, but latterly even this has been found unnecessary. The first occasion in which it was omitted, was the case of a young lady whose idiosyncrasies were such that the smallest dose induced vomiting. I proceeded to administer fifteen grains of soda salicylate along with ten minims of fluid extract of cascara sagrada, every hour, and after a few doses the exceptionally great swelling in the joints began to subside, the pain abated, and the fever was materially reduced, the patient resting easily. With improvement I reduced the quantity of medicine by giving the doses at greater intervals—two or three hours apart.

This method has given me exceptionally good results for the past six or eight months, and what is more to the point, I have not, even in a single instance, had severe complications or sequelæ. Further, I have had almost as good results from the same plan of treatment in chronic and muscular rheumatism.

The after-treatment—*i. e.*, after the fever abates—is practically the same in all instances, viz., muriate tincture of iron, cod-liver oil, and generous diet. The cascara is also continued in small doses for some time, with a view of maintaining regular movements of the bowels, and preventing return of acute symptoms.

From the observations thus far afforded, I conclude that the combination of cascara and soda salicylate, controls pain and swelling more effectually than any remedy hitherto used by me; moreover, it appears to lower temperature rapidly, and has the especial advantage of regulating the bowels and digestion.

620 West Street.

THERAPEUTIC VALUE OF LACTIC ACID.

Rheumatic Gout. * * * "This patient had retrocedent gout for more than fifty years, along

with a neurosis involving the whole genito-urinary tract—dependent upon the former doubtless—besides at one time giving evidence of stones, numbers of small 'gravel' being passed. This is the form of rheumatic gout that Doctor AUSTIN FLINT declares to be incurable; but if it is no sin, after my experience with this patient and one other, I may be permitted to disagree with him, or at least to doubt.

"The patient was given very dilute lactic acid, no other fluid being allowed at meals, and though previously any form of acid put him to torture, the very first dose afforded relief, and three set him in ecstasies. The dilute acid was made by adding four drachms (the amount taken in one week) to a pint of pure cold water. After an experience of nine weeks the sufferer declared it 'helped every inch of his system.' During this time, one finger has been made straight, and the deposits in the joints in each instance materially reduced: the genito urinary neurosis, and the gravel, have both disappeared, and there is a notable freedom from pain or suffering of any kind.

"Another patient who complained his kidneys were 'racks of pain,' and who suffered from nephritic and cystic troubles, obtained relief, which continued without intermission for five weeks, from a single dose.

[The foregoing is from a private letter from our friend Dr. WM. DUNSTONE, resident in the Lake Superior district, and was not intended for publication; but as some valuably suggestive material is contained, we feel sure he will pardon us this breach of confidence.

That lactic acid possesses more virtues as a therapeutical agent in certain diseases of the bladder and genito-urinary tract than has been generally recognized, admits of little doubt. It is well known that sour milk, hard cider, and other fluids that are rich in the acid have long enjoyed an enviable reputation amongst the laity in this class of diseases, and doubtless with good reason. This recalls to mind the case of a patient, seventy odd years of age, who suffered from "gravel" in connection with dermoid cyst of the posterior portion of the prostate, the latter terminating in vesical cancer, who could obtain no relief from suffering save while drinking prodigious quantities of hard cider or sour milk. He at one time passed with each micturition, a half to a teaspoonful of fine concretions, the act entailing prolonged effort and excruciating agony. In causing the disappearance of the former, and mitigating the latter, the remedies appeared to exert an almost magical influence.—ED.

Correspondence.

PARIS LETTER.

Absinthe and Absinthism—New Treatment for Orchitis—Asthma as a Hereditary Neurosis—Acetate of Lead in Pneumonia.

PARIS, Oct. 11, 1889.

Some very interesting researches have recently been made under the direction of the Academy of Medicine regarding the action of absinthe, due largely to the fact it has been claimed that this substance, as well as vermouth, "bittre," etc., is practically harmless, and that essence of anise was the more toxic—claims calculated to mislead the public at large.

Two Guinea-pigs having been selected, one was injected with a gramme of essence of absinthe, the other with an equal quantity of essence of anise.

At the expiration of a few seconds, the animal that received the absinthe injection was seized with convulsions of epileptic character, that terminated in death half an hour later. The pig that received the anise, however, exhibited no abnormal symptoms.

This experiment was repeated upon several occasions, with the same results, and the conclusions drawn therefrom are, that when essence of absinthe is taken in sufficient quantities to procure the condition known as chronic absinthism, it tends to induce true epileptiform convulsions, of the type procured by (so-called) epileptisants of vegetable origin.

Under such circumstances, absinthism must be regarded as equally grave with chronic alcoholism, perhaps more so.

At the last meeting of the Association for the Advancement of Science, Dr. DUHAN gave a new method for treating Orchitis which had thus far afforded him excellent results—viz., by iodized cotton. He has made use of it in hundreds of cases of more or less gravity, and claims that after 12 hours a decided remission of pain was obtained, followed by cure at the end of a week.—If called at the very commencement of the malady, a cure is often effected in three days. The induration of the epidermis disappears in about fourteen days.

Professor DIEULAFOY, in a recent lecture upon Asthma, made the following suggestions:

First, that the disease is of neurotic character—a neurosis, in fact—and almost always hereditary in nature.

Second: that the management, if properly undertaken and in a way to secure the happiest results, is necessarily twofold, viz. treatment of the asthmatic diathesis and treatment of the attack proper.

If the attack is threatening or commencing, he applies to the lining membrane of the nose,

by means of a camel's-hair brush pushed up as far as possible, a warm five per cent. solution of cocaine hydrochlorate; or the same may be sprayed into the nose and throat by means of a hand atomizer. In this way the attacks may frequently be aborted.

If the foregoing does uot prove successful, however, he causes the patient to respire, by means of a handkerchief, eight or ten drops of pyridin; or a few grammes (three or four) may be placed upon a plate by the bedside. If desired, cocaine and pyridin may be employed simultaneously.

Again, if the attack is not checked, the patient is made to smoke a large pipe packed with alternate layers of stramonium leaves, and fine paper shreds saturated with a solution of potassium nitrate.

If the attack is at its height, a small dose of morphine may be exhibited subcutaneously, and repeated again in a quarter of an hour if it seems desirable.

By the treatment of the asthmatic diathesis, it is claimed the attacks may be altogether prevented, or at least made to disappear for long periods of time. Here is recommended, potassium iodide, belladonna, and arsenic. For a week the patient should take daily from one to two grammes of the iodide—the larger amount by all means if it can be borne; and during the succeeding fortnight a pill, every morning, containing one half centigramme each of powdered belladonna leaves, and belladonna extract; as soon as possible (gradually) the dose should be increased to two pills. At the same time should be taken daily, in distilled water, 0.003 grammes of sodium arseniate. At the expiration of this period, a return is made for seven days to the potassium iodide, followed again by the sodium arseniate, and so on, alternating for a period of from three to six months as the individual case seems to demand.

If the patient in addition suffers with emphysema, compressed air baths will be found most efficacious; if affected with pulmonary catarrh also, he should go to the mineral springs of Mout-Dore, La Bourboule, or Royat; but mountains, and all high altitudes and rarefied atmospheres should be forbidden.

Finally, it should be remembered that attacks of asthma may be induced through idiosyncrasies,—by causes unsuspected, the most varied and peculiar, such as the odor of strawberries, fumes of sulphur matches, by the powder of ipecacuanha, pollen of grasses, dust of cereals, etc. Perhaps an individual patient is seized with an attack while in a certain town, village, or tract of country, yet finds perfect immunity when he takes up his residence elsewhere.

At the recent Congress of Therapeutics and Materia Medica held here, Doctor TRACY strongly recommended lead acetate as a means of abbreviating the morbid process in pneumonia to prevent it assuming chronic form. This is a remedy that is in general use in Germany where it is highly thought of; and it is claimed it has the effect of rapidly diminishing both pulse-beat and temperature. I have sometimes employed it, with laudanum, in this connection in order to prevent diarrhœa, but have had no experience otherwise. The minimum dose is 40 centigrammes, which for an adult may sometimes be increased to a gramme, given in divided doses during the twenty-four hours; and it may be pressed for twelve or fourteen days without inconvenience. Of course alcoholic stimulants are not neglected if they seem warranted, in connection with this treatment, which is claimed to secure genuine resurrection in the pneumonias of the aged, feeble, alcoholic, and diabetic.

DANGERS IN DRIED FRUITS.

EDITOR MEDICAL AGE:

Danger from bleached dried fruit is hardly suspected, yet the use of such fruit is not without risk. Fruit is now bleached by all the larger evaporating establishments, and by many others. This is well uuderstood by those in the trade and by grocers, but hardly known by most consumers. Bleaching is done by exposing the green fruit to the fumes of burning sulphur in the evaporator, or quite as often, before it is placed iu the evaporator, the time of exposure to sulphur vapor varying with the degree of whiteness desired.

The practice has only become general within a few years. Most grown people recollect the advent of very uniformly white dried apples in 50-pound boxes. There was soon such a craze for the "nice white fruit" that nearly every evaporator company felt compelled, by the increased price of the fruit, to adopt the bleaching process. It is uow applied to all kinds of fruits. [It had been to hops, to some extent, years previously.]

Are bleached dried fruits ever poisonous? Germany answers that they are. After repeated chemical examinations of American evaporated dried apples, zinc—poisonous in very small quantities—was found to such an exteut in the samples, that all such fruit was ordered destroyed, and a decree issued forbidding future importations uuless accompanied by a chemist's certificate that each lot or iuvoice was free from injurious substance. Such action—as there is no competitiou with such fruit—may well set the American public to thinking, and better, to some actiou against the bleaching of fruit. Greater and uniform whiteness is the chief recommendatiou of the practice, and against it are the losses and dangers from the bleachiug. No farmer thinks his hay is iu-

proved when bleached by as innocent agents as sunshine, dew and rain.

The zinc found by German chemists is evidently from the zinc-coated or "galvanized" trays used in many, if not all, of the evaporating establishments, to hold the fruit while drying. Some sour fruits may act slightly on zinc, but it is chiefly from the burning of the sulphur, which causes the formation of sulphurous acid: and this acid in contact with water and air—as in an evaporator—is oxydized, or changed to sulphuric acid—known also as oil of vitrol—and though in a weak form, it readily acts upon zinc, as is shown in telegraphic and other galvanic batteries. (See the National Dispensatory, published by H. C. Lea's Sons & Co., Philadelphia, article "Sulphurous Acid.")

If not always poisonous, careful tasters know that bleaching always injures the fruit flavor. This is probably why so many people have lost their former relish for dried fruits. Grocers who realize these things, now find it almost impossible to longer obtain unsophisticated dried fruits. Canned fruits, though more expensive, are now often preferred to the uncertain dried fruits: while the latter if pure should, and would, be preferred over average canned goods, as safer and more economical, especially for distant points. Bleaching and tampering with fruits is calculated to injure if not destroy this important industry, which should now be only in its infancy. These views help explain the "over done" evaporator business of 1888.

The quality and even the variety of well known fruits, if unbleached, can often be told by the looks, and by the taste when cooked, but when bleached those made from good and poor fruit, all look and taste alike.

If consumers of dried fruits will insist upon obtaining honest, healthful unbleached fruit, or none at all, such self-preservative action, added to that of the German government, will soon correct such a fraud as the useless and injurious bleaching of fruits.

JOEL W. SMITH, M. D.

CHARLES CITY, IOWA.

DIPHTHERIA FROM CATS.

Dr. J. M. SCOTT, of Scandia, Kansas, writes of four most malignant cases of this character occurring in one family. A kitten came to the house a few days before the disease manifested itself, and was fondled by the children. Through accident the mother discovered the mouth and throat of the feline were infested with false membrane, and so caused it to be killed, but too late to save herself and three little girls from infection. The query arises: Are cats more prone to infection than other animals? If so it behooves every one to keep a watchful eye on these household pets.

The Medical Age.

A SEMI-MONTHLY REVIEW OF MEDICINE.

B. W. PALMER, A. M., M. D., Editor.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

DETROIT, MICH., OCT. 25, 1889

Editorial.

A REVIEW OF ANTIPYRIN AND ANTIFEBRIN AS THERAPEUTIC AGENTS.

Antipyrin or analgesin. the synthetically prepared derivative of chinoline chemically known as *dimethyloxyquinizin*, has attained a phenomenal and almost unprecedented popularity since its discovery by KNORR in 1884.

This popularity, which has now fairly passed its zenith, unfortunately has never been founded upon scientific considerations and observations, but upon a purely empirical basis, as must be patent to anyone who is sufficiently interested to examine critically the literature of the drug—a literature that is simply phenomenal in extent.

The very fact that antipyrin is heralded as a panacea for all morbid conditions, and in all individual symptoms and sufferings, should, one would think, be enough to condemn it to careful observers, or at least inculcate cautious administration—for the aphorism of the late CHAS. J. B. WILLIAMS is applicable in all therapeutic relations: "What is infallible in all things is satisfactory in none." That this has not been the history of the newer antipyretics, must be acknowledged.

Though so recently introduced, it is doubtful if the materia medica can produce, or the history of therapeutics exhibit, another agent that has been so loudly and excessively lauded, so extensively employed in widely different conditions of disease, or has obtained so excessive an amount of gratuitous advertising. Until the introduction of antifebrin or acetanelid (*phenylacetamid*), which is deemed safer though stronger, and is certainly cheaper, it apparently occupied the highest position in the list of antithermics. And yet, in the half a decade that has elapsed since its discovery our knowledge of the precise physiological phenomena induced by administration in the varying conditions of health and disease, has received but trifling accessions: its action has been variously interpreted by different observers, and there is little uniformity in the re-

ports except in general inclination toward disagreement and contradiction.

No small degree of error, oft-times most unfortunate for patient and physician alike, has arisen from the constantly reiterated assurance that antipyrin is in all degrees, proportions, conditions, etc., "wholly innocuous;" that it is at the same time the "most safe, convenient, soluble, palatable, and promptly efficient of antipyretics; and the remedy *par excellence* in all forms of neuroses derived from obscure derangements of the central nervous system!" And this in the face of the early known fact that it produces convulsions in lower animals when given in considerable doses; that it paralyzes the heart; alters the color of the blood by diminishing the number of red corpuscles (artificial leucocythæmia); and, while in small, increasing blood-pressure, in medium and large, doses there is a reverse condition induced, frequently most rapidly, abruptly, and without warning. The action upon the temperature, though pretty constant in health, is not to be compared to the sudden and certain fall that occurs in febrile conditions.

It is now considered as established, that this reduction of temperature is the result of *diminished production of heat*, and consequently of enfeebled or diminished vitality due to some action upon the heat centre situated in the corpus striatum. Metabolism is markedly checked, and the volume of urea diminished; diaphoresis ensues, but in no way explains the fall of temperature; and the reflex excitability of the spinal cord is greatly depressed, ultimately, as a result, leading to anæsthesia.

Semmola declares, and with no small degree of justice, that all the synthetically derived antipyretics are dangerous, and more so in proportion as they manifest analgesic properties, a statement the truth of which is obvious from a physiological standpoint, and that is further borne out by clinical experience and research. Untoward results, not a few of them lethal, are of much more common occurrence from the use of antipyrin and antifebrin than is generally known or admitted, since, unfortunately for science, however eager all may be to chronicle successes, few are willing to record their accidents and failures.

It is but recently, apparently, the knowledge has been forced upon the medical profession, that antipyrin is a powerful cardiac depressant, and then,—in spite of the profound cyanosis and collapse often induced—only after a number of sudden deaths, at first ascribed to the malady instead of its mistaken and erroneous therapeusis. Seemingly, the foregoing facts should suffice to withdraw this remedy permanently from the list of agents employed in low and continued fevers, even if the farther fact that it now poses as a patent and proprietary article, should not cause it to be altogether tabooed.

In an advertising page of a daily secular publication before us, cheek by jowl with abortifacients, liver pills, electric belts, specifics for seminal and uterine weakness, and for venereal diseases, appears an announcement of Knorr's Antipyrin which is stated to be an "Approved remedy for headache, migraine, neuralgia, rheumatism, whooping-cough, dysmenorrhœa, etc," further bolstered up by the assertion (alas, too true!) that it is "prescribed by physicians generally." It is also notorious that it is sold universally by pharmacists, "in packages with full directions," and in "quantities to suit" the lay consumer. Physicians also are derelict, not to say criminally (though ignorantly perhaps) careless, since they oftentimes foster such sales by advising their patients to purchase for self prescription and administration: We recently overheard one (a homœopath, by the way), recommending a lady of hysterical tendencies to purchase *a half ounce*, and "*take from a quarter to a half teaspoonful in water as occasion demands.*"—*Query*: In case of fatal accident from such loose measures, is it at all probable, at the coroner's quest, that antipyrin would figure as a cause of death?

The claim that antipyrin is a panacea in all forms of painful neuroses, has already borne mischievous fruit, as it must now be added to the long and constantly swelling list of preparations that, by inculcating habit, secure hordes of miserable slaves and unhappy votaries—drugs that while employed under proper restrictions are both appropriate and beneficial in combating the various ills that mortal flesh is heir to, but by indiscriminate use and abuse are veritable curses to humanity. The discovery that it is a nerve stimulant and tonic, with the depressing antithesis that obtains to drugs of this class, entitles it to classification with opium, morphine, chloral, chloroform, ether, absinthe, alcohol and other drugs that derive popularity from their insidious influence upon overstrained nervous systems. Already the number of victims worshiping at the shrine of antipyrin is considerable, chiefly however, among those of the fair sex that aim to be classed as "society women," and who are ever ready to seize upon every and anything that gives promise of even temporary amelioration of the enervation that arises from excesses.

That every therapeutic agent exhibits a potency for good in exact proportion to an obverse character, is a physiological and therapeutical corollary beyond dispute. However valuable as a nerve stimulant or heart sedative an agent may be, it owes its activity to the possession of an exactly opposite influence, the differences being due to mode of application or administration—indeed all valuable remedies

possess a dual aetivity; consequently the employment of such ignorantly, and without discretion, especially where no stimulation or sedation of heart or nerves is indicated, cannot but be most pernicous, morally and physically, since it inculcates an artificial morbid condition that must needs induce, to greater or less extent, waste of vital force.

One of the most constant effects of antipyrin —in fact *the* constant effect—is to provoke and promote, reflexedly through the spinal cord, pulmonary and heart failure. Further, in overtaxed and anæmic women, it tends to menstrual suppression that, when relieved, is apt to provoke profuse, dangerous, and frequently recurring meuorrhagia; and though oft claimed as a "convenient, safe, and reliable hæmostatic," its dangers during, or following upon, exhausting hæmorrhages, and in dysmenorrhœa and menorrhagia, cannot be estimated too highly. Recently also, the British Medical Journal has called attention to several cases of induced epilepsy, apparently due to antipyrin.

The occasions in which the drug is wholly contraindicated, are those that are in any way associated with, or presenting a tendency to, cardiac and pulmonary weakness; likewise anæmias, and cases of extreme debility or exhaustion. Consequently it is inadmissable in diphtheria, scarlatina, laryngismus stridulus, chronic nephritis—maladies that are especially apt to afford evidences of myo-cardiac or pulmonary insufficiency; in catarrhal pneumonia ("quick consumption"); the advanced stages of tuberculosis; and lobar pneumonia where there is pulmonary œdema. In Bright's disease it has proved suddenly fatal in even very minute doses.

What is true of antipyrin, is equally or more so of antifebrin.

It is to be hoped, for the honor and repute of the medical profession, that the day is not far distant when antipyrin, as well as antifebrin, antithermin, exalgin, and the rest of the patented and uncertain synthetical derivatives, will be relegated to desuetude, especially as their reputations rest upon most hypothetical and unstable foundations. While it may be granted that the two first named, more especially, do reduce temperature, it must also be remembered that this action is obtained through the heart and at the expense of induced circulatory and nerve irregularity, and even then is but temporary or fleeting, their claimed virtues turning upon the moot question of the direct and more deleterious effect of high temperatures over cardiac weakness.

In every respect these drugs are vastly inferior to the cheapest of cinchona salts, the effects of which can be accurately guaged, if the latter are understandingly administered. In truth, the faults supposed to accrue to cinchona, quinine, chinoidine, etc., are exclusively those of the prescriber—faults that obtain to any and all drugs where widely different results are expected from like doses and indiscriminate and injudicious administration. The remedy is to be found only in better understanding and application of physiological, pathological, and chemical laws and changes, as induced by varying conditions of disease; also by a study of each individual exhibition of a malady by itself, independently of title, of causation, or manifestation. Herein, most notably and unfortunately, is the weakest joint in the armor of Medicine, one which can be repaired only by higher and better methods of education such as inculcate more profound and accurate modes of observation, thought, and deduction.

FOOD FOR INFANTS.

Food is the primary necessity in raising children. The character, quantity, and time of administering, should have the scrupulous care of all those who are responsible for their welfare. There is only one reliable source of supply for an infant. It is the first "food for infants" which was used, and it has not yet been equalled by any other. It is, indeed, a sad sight to see an helpless infant cut off from its natural supply of food, and made to depend upon stuff manufactured by men who are guided in their work by formulas they do not understand and hence cannot imitate. If a mother by any misfortune or defect is unable to provide for her own young, a nurse should be provided if necessary. It is a great misfortune to begin life with a bottle. The poor usually do right by their infants, so far as feeding them for the first year. But the rich in this country are often derelict in this respect. Those birds—not birds of paradise, though their gay plumage would lead one to suppose that they belonged to that favored tribe—those birds that can sing and won't, are the most reprehensible of all God's creatures. It is a fact that a great many wealthy mothers can not nurse their own children. Many there are who are too weak to perform that most important of functions. Lamentably perverted creatures, wholly out of place in this world, there are, who will not.

Food prepared and given from the neighborhood of a loving maternal heart, is the true method of nourishment during the first year of life, and little more need be said upon the subject. Books there are, all sufficient for every purpose on infant feeding, which may be consulted if elaborate details are needed. There is, however, one principle relating to this part of the subject which may well be brought out, viz.: The ways and means of ascertaining if the food employed is agreeing with the child. The

rule is, that a child of good constitution will prosper if supplied with proper nourishment. It follows, that mal-nutrition depends either upon the food given, or upon the use made of it by the child. If, then, a child has a pure constitution and is free from disease, and still does not thrive, the food must be improper. Under such conditions the duty of the mother clearly is, to ascertain the kind of food which will answer the purpose. This is often attempted by the physician, who recommends some kind of food, or bill of fare, which he thinks must agree with all children; or, the mother may have some fixed ideas about infant feeding; and hence, all little ones who come under this particular doctor and mother must take the prescribed food. The true thing—true because based upon facts—is, to find for each child the food which it likes, and which agrees with it. The only safe rule is to obey an injunction which was given for another purpose: "Prove all things, and hold fast that which is good." The choice of things should be limited to articles of food that are known to be suitable in a general way, and when any one thing is found to agree with the child, it should be fixed upon and placed in the bill of fare.

The quantity of food given should be limited only by the wants of the child. When a child is in health, the appetite is the best guide in eating, so far as regards quantity. Sins without number have been committed in scrimping the diet of girls in order to make them delicate, believing that to be sickly and helpless is ladylike. Strange it is that some of the females who prate the loudest about Woman's Rights, deny their own girls (or rather girl, as they usually have but one,) the right to eat enough to satisfy hunger. Children seldom over eat, unless subject to the evils of that other wicked habit of keeping them too long between meals. Nutrition is so rapid in childhood that the quantity of food required is relatively greater than in adult life; hence, they should be fed at regular, and not too long, intervals. Want of attention to this is the cause of the bad habit of eating between meals. If the time is not too long, children seldom ask for scraps in the intervals. These rules will suffice for all healthy children, and therefore special care is only necessary when in given cases there is some apparent mal-nutrition. It should be borne in mind also, by lay people, that there are two grand divisions in the process of nutrition; first, digestion and absorption; second, disintegration and assimilation. Digestion is the change which is made in food by the digestive organs which prepare it for absorption, that is, its transmission from the alimentary canal to the blood vessels. Now, when any derangement occurs in the primary processes of nutrition, it is usually manifested by loss of appetite or irregularity or capriciousness in the desire for food. On the other hand, when the secondary process, *i. e.*, assimilation, or the appropriation of nutriment by the tissues of the body, is deranged, the result will appear in the character of the tissues. Examples of this are seen in children who are fat and pale faced. They are often said to be pictures of health by the people, while to the physician they are simply pictures of mal-assimilation. Their food literally runs to fat in place of bone, nerve, and muscle. The object then, should be, in catering for the one class, to find food that agrees with the stomach, which really means food which that particular stomach can digest. In the other class, the food should be used which gives the kind of tissue most needed. In all cases it is safe to employ an abundant supply which includes both animal and vegetable food, and the variety should only be limited by the exclusion of articles which are known to be unwholesome. Finally, in feeding children, girls and boys should eat at the same table and fare alike. The differentiation of sex which is observed at birth, should remain elementary until towards puberty, so that during childhood the nutrition of both sexes should be the same.

THE TRAINED NURSE OF TO-DAY.

It is an undoubted fact, that the trained nurse of to-day is in many respects an improvement over the unskilled and often ignorant individual who formerly was the physician's assistant in the sick-room. At the same time, our experience, which is by no means unique, leads us to utter a warning against the prevalent custom of educating women for this important position in such a manner that a knowledge of medicine is imparted—not in the direct line of nursing proper, but more akin to the training of medical students—and, necessarily, from the time at the disposal of the pupil nurse, of so meagre a character that it has the tendency, in some cases at least, of leading to a misconception of the sphere of usefulness which she is meant to occupy, and, in rarer instances, of proving a dangerous weapon in her hands; she magnifies her limited information in such a manner as to think that she knows best what to do in certain emergencies—even better than the doctor. It is on this account that some physicians, particularly the older practitioners, prefer an untrained nurse to one who has creditably passed through a course in the training schools.

It has been said that a nurse should be, to all intents and purposes, mechanical in her actions towards patients, so far as the carrying out of the doctor's directions is concerned. In a great measure this is true; but associated with this mechanism, must be intelligence and

power of observation, which are absolute essentials. Without these qualifications, one might just as well try to make a diamond of a piece of glass, or a scholar of an idiot, as to endeavor to make of such a one a nurse.

We do not wish to be understood as decrying in any sense the manifold advantages which these schools possess. Far from it. They occupy a legitimate field of usefulness, which today has elevated the profession of nursing, far beyond the most sanguine expectations of the institutors of this noble and beneficent work. Had the nurse, in a cetain institution of which we have knowledge, partaken of the benefits of one of these schools, she would not have administered a nauseating dose of turpentine, soap and water, to a patient by the mouth, when the attending physician had ordered the same as an enema. It is more than probable, however, that such stupidity would be sufficient indication of the mental calibre of the individual to debar her from pursuing her studies very far in the line of nursing.

Dr. Louis Starr, *Hygiene of the Nursery*, says in reference to a nurse-maid for children, that: "She should have a sufficiently developed mind to follow out and remember general directions, whether given by the physician or mother, and to do routine work without constant supervision. * * * * A certain amount of experience is a good thing, and on this account it is a recommendation for a woman to have had a partial hospital training, etc." He further continues: "One must beware of the self-opinionated maid, who, having cared for several children, thinks she knows everything, and will be controlled by neither professional or maternal directions. Such women are as ignorant and inefficient as they are common." It is just to this class of women, that the present method instituted in the majority of the training schools for nurses, does harm—of what advantage is it for a nurse to know that digitalis has a certain effect upon the heart, and that in large doses when maintained sometime, it is likely, by its cumulative effect, to produce disastrous results?

The following questions, taken at random, from several series of examinations in one of the leading training schools for nurses, illustrate the utter absurdity of the prevalent idea of the instructors to the same, that a knowledge of anatomy, physiology, and, even materia medica and medicine proper, are the main requisites.

"What composes a Dover powder? What sedatives for nervousness do you know of? Tell what is known about pepsin; sub-nitrate of bismuth. What is a carminative? Test for albumen?

"Describe the portal circulation. Name the bones of the ear. What medicines have ou been ordered to give for pain and in what doses? When is an enema required and when a purgative? What is amaurosis? What symptoms of heart disease do you know? Would you recognize symptoms of compression of the brain? What are they? Which is more dangerous, compression or concussion?"

How much more practical and to the point are the ensuing, taken from the same source: "What is the dose of castor oil? The Latin name for it? What is the right way to make toast; to cook an egg; to make tea? Where is the præcordial region; the lungs; the liver? How do you prevent patients taking cold when perspiring? How do you cup, and how long are the cups left on? How keep catheters antiseptic? Why should iron, in solution, be given through a tube? What should be the temperature of the sick-room?"

The course of training which would prove most essential to the nurse in the practice of her profession, would be something like the following: Instruction as to diet, ventilation, disinfectants, medical and surgical emergencies; the observation and recording of such phenomena as may occur between the physician's visits (as cough, chills, convulsions, etc.), the preparation and application of poultices, blisters, and fomentations; massage; the dressing of wounds; the administration of medicines; bandaging, including the preparation of bandages, and also the padding of splints; the preparation for major and other surgical operations, as well as paying proper attention to the wants of the operator; the management of helpless patients; making beds; moving and changing positions, preventing bed-sores, giving baths in bed, etc.; and, finally, the preparing and serving of delicacies for the sick.

Combined with the above training, and *supplementary* to it, a course of lectures should be given upon the grosser anatomy of the body, including the location and position of the important viscera; physiology; nursing of special diseases, as of the eye; gynæcological cases; fevers, etc.; thermometery; hygiene, and kindred subjects which readily suggest themselves, but which space forbids enumerating here.

We call the attention of the profession to this subject, at this time, for a particular reason. To many of them, especially the hospital associates, fall the duty in a large measure, of instructing by didactic lectures the pupil-nurse. To them, therefore, is alloted an arduous task for which their time prevents, in many cases, any special preparation. The result is, frequently, that the subject is handled in a manner so profound as to fail in a certain degree to fulfill the requirements needed in training a school of practical nurses. Instead of entering deeply into subjects handled, peculiarly medical in character, if they were to devote more time to studies especially of importance to the nurse in the routine duties of her profession, we

would have women alive to the responsibilities of their duties, willing to follow, implicitly the directions of the medical attendant without dictation or suggestion, and ever ready to exert ingenuity and tact to adopt the best means at hand to relieve suffering and to secure the comfort and well-being of the patient, without unnecessary trouble or expense.

Book Notices.

SUGGESTIVE THERAPEUTICS. A Treatise upon the Nature and Uses of Hypnotism, by H. Bernheim, M. D. Translated by Christian A. Harter, M. D., of New York New York City: G. P. Putnam's Sons. 1889. Cloth, octavo, 820 pages.

From the preface we learn the author's views of hypnotism in these words: "Hypnotism is no longer one of the curiosities of science; it is a therapeutic resource of unquestionable value which lies at the hands of every medical practitioner who is willing to take the trouble to inquire into its nature, and the manner of its use."

Hypnotism, however, has never received in the United States the consideration that is its due, for that there is such a thing as a hypnotic state, in which the patient is absolutely and entirely under the control of the operator, can no longer be doubted.

Dr. BERNHEIM believes any and every person may be more or less hypnotized, which is a different view from that of CHARCOT, who considers susceptibility depends somewhat upon an hysterical element. Indeed, the latter defines hypnotism as a procedure made possible by (or a predisposition to) hysteria, while the former considers as a particular psychical state that may be induced, and that increases in varying degree "*suggestibility*,"—*i. e.*, the aptitude of being influenced by an idea that the brain receives and realizes. There may be also hypnotism without sleep; and he has obtained remarkable results by simply ordering the individual operated upon to close the eyes, then suggesting his or her trouble no longer exists. Only from five to ten per cent. of patients are non-receptive, it is claimed, which, if correct, promises greater benefits from "suggestion" than has heretofore been deemed possible. Not only are functional diseases amenable thereto, but the "suggestion" has been employed to raise blisters, and even heal wounds without suppuration; and the author explains the phenomena as emanating from the same *vis medicatrix* that induces specific results from the exhibition of placeboes and miraculous waters; it is the power of mind over matter!

There can be no doubt that the mind, when duly concentrated, does exert a powerful influence over the body, and is in turn vigorously acted upon by variable states of the latter. Again, we know that when a healthy person is about falling to sleep, before all of the faculties have become obliterated, suggestion may be made and responses obtained. Somnambulism is a reality beyond cavil. Hence we see that certain factors of the mental constitution may retain their activity while the rest are held in abeyance. As a matter of fact, the inactivity of the higher faculties, such as the reason, causes an intensified activity of the lower, such as the perceptions and sensibilities. This is the result of increased concentration. The hearing is rendered more acute, the sight more piercing, and the perceptions more indelibly stamped upon the mind. Thus are explained the wonders of second sight and clairvoyance, the medium being in a state to catch the slightest perceptible movement of the face and lips of those round about, however guarded they may be in testing his powers. In like manner the attention of the hypnotized person may be concentrated upon some particular part of his own body, and through the increased nerve excitability a change of some sort wrought therein. If a patient by suggestion can be made to feel no pain, the part may be kept at rest, and so relief obtained by the recuperative powers of Nature.

Of all the means employed to cure disease through the effects of the imagination, hypnotism is undoubtedly the most powerful. With certain precautions, mostly of a medico-legal character, it behooves American clinicians to study and become more familiar with this new therapeutic agent, and if there is anything really valuable and scientific in it, to rescue it from the hands of quacks and charlatans; and in this the volume before us will prove an aid.

OPHTHALMOLOGY AND OPHTHALMOSCOPY, for Practitioners and Students. By Dr. Hermann Schmidt-Rimpler. Translated from the 3d German revised edition, and edited by D. B. St. John Roosa, M. D., 8 vo., pp. 571. New York: Wm. Wood & Co., Pub.

This work, principally subserves didactic purposes, and is intended to present modern ophthalmology in a form which will facilitate study and information. This required above all, a distinct separation of the different divisions and subdivisions, and a gradually advancing presentation of each subject in a way that *assumes* as little as possible. This explains the introduction of the optical and anatomico-physiological data which are necessary to thorough comprehension, and is especially important in teaching errors of refraction and accomodation.

Notably, a detailed description is devoted to ophthalmoscopy; and everything belonging to this category is given in a way to afford a complete guide to all manipulations—information, we regret to say, too generally neglected in most text books of this class.

This new edition is much more full in many respects than the older ones, and there is also evidence of considerable critical sifting. It is fully abreast with the times in improvements, and notable additions are, exact measurement of light senses, and the use of cocaine. Speaking of the latter, in connection with the employment of Bowman's probes to dilate the lachrymal canaliculus, the author says of the pain induced, that it may be diminished by the preliminary injection of cocaine solution,—a statement that is perfectly in consonance with our own experience; but the American editor, parenthetically, denies this. If Dr. Sr. JOHN ROOSA'S experience is, as intimated, unfortunate in "most instances," his failures must be attributed not to the alkaloid at large, but to the imperfect character of that employed.

The work as a whole is a clearly written, comprehensive, scientific treatise, that cannot fail to secure the confidence of the profession. Its value is enhanced, moreover, by short notes added by Prof. ROOSA, and by new illustrations provided by the American publishers.

AN INTRODUCTION TO PATHOLOGY AND MORBID ANATOMY. By T. Henry Green, M. D. Sixth American from seventh English edition, revised and enlarged by Stanley Boyd, M. B., F. R. C. S. Cloth; 8vo.; pp., 539. Price, $2 75. Published by Lea Brothers & Co , Philadelphia.

This is a most concise and trustworthy volume, and, constitutes for the student and busy practitioner a thoroughly practical book—the most practical of its class, so far as American publications are concerned. While it cannot wholly supersede ORTH'S work, it is a desirable adjunct thereto, and, it might be added, an essential companion, since it explains much that in the latter is taken for granted as already known to the reader. A notable feature is the convenient arrangement of text and titles of subjects, in a way to expedite reference.

The sections devoted to Septicæmia and Pyæmia, and the Vegetable Parasites, are especially to be commended for their simplicity and clearness; and the same is equally true of the treatment of Thrombosis and Embolism.

On the whole, it is a work the earnest, studious practitioner can illy afford to do without.

CHEMISTRY—GENERAL, MEDICAL, AND PHARMACEUTICAL By John Attfield, F. R S. Twelfth edition. 12mo ; pp . 770. Price, cloth $2.75; sheep $3.25. Published by Lea Brothers & Co., Philadelphia.

The author states that his "chief aim is to teach the general truths of chemistry to medical and pharmaceutical pupils." Yet, so far as laws and principles are concerned, the work is an excellent text-book of general chemistry.

The mode of teaching embodied, is eminently practical, and the examples suggested for the better understanding of the text, and illustrating chemical laws, constituents, and forces, are those that are always at hand, being material that lies in rich abundance everywhere. This greatly increases the usefulness of the science to the class for whom this volume is prepared, and at the same time in no way diminishes its value as an instrument of mental culture; on the contrary, it tends to sharpen and expand the powers of observation, thus enlarging and strengthening memory and imagination, giving point to the perceptive faculties.

From other chemical text books it differs in three notable particulars: First, in the exclusion of matter relating to compounds which at present are only of interest to the scientific chemist; second, in containing more or less of the chemistry of every substance recognized officially, or in general employment as a remedial agent: third, in so casting the paragraphs that the work may be conveniently employed as a guide in studying the science of chemistry experimentally.

Notes and News.

"The Loves of the Bacilli."—

Quoth Bacillus to Bacilla
(Surely everything has sex):
"It is quite enough to fill a
Soul with pride, to see the necks
Of these mighty men of Science
O'er the microscope bent low,
While beneath them in defiance
Spins the merry Vibrio.

"Proud am I to think, my Comma,
While the world rolls on its way,
Every fell disease springs from a
Fairy filament. They say
Autocrats that tower Titanic
Have been known to bow to me;
Mighty potentates in panic
Disinfect at thought of thee.

"Rash would he be who should presage
That no germs behind us are;
We are part of that great message
Which outrings 'twixt earth and star
What by thousands or by tens is
Multiplied, in vain they show;
Something lies beyond his lenses
Mortal man may never know."

"We are greater, my Bacilla,
Than all monarchs: for me seems
We need but exist to fill a
Strong man's brain with fever-dreams.
Such a thought my passion kindles,
O my microscopic bride;
Kiss me! although twenty Tyndalls
Have their eyes upon the slide."

—*St. James Gazette.*

Misapplied Physiological Ingenuity. — The Medical Press and Circular finds in an Indian contemporary some curious instances of misapplied ingenuity on the part of certain habitual criminals in that country. The discovery on a prisoner of a heavy leaden bullet, about three-quarters of an inch in diameter, led to an in-

quiry into the object to which it was applied. It was ascertained that it served to bring about the formation of a pouch-like recess at the base of the epiglottis. The ball is allowed to slide down to the desired position, and it is retained there for about half an hour at a time. This operation is repeated many times daily until a pouch the desired size results, in which criminals contrive to secrete jewelry, money, etc., in such a way as to defy the most careful search, and without interfering in anyway with speech or respiration. Upwards of twenty prisoners at Calcutta were found to be provided with this pouch formation. The resources of the professional malingerer are exceedingly varied, and testify to no small amount of cunning. The taking of internal irritants is very common, but would-be in-patients very frequently overshoot the mark and render recovery impossible. Castor oil seeds, croton beans, and sundry other agents are employed with this object in view, and the medical officers of Indian prisons have to be continually on the lookout for artificially induced diseases, which baffle diagnosis and resist treatment. Army surgeons are not altogether unfamiliar with these tricks, but the British soldier is a mere child in such matters compared with the artful Hindu.—*Boston Med. and Surg. Journal.*

The Velocity of Nerve Impulses.—EDWARD T. REICHERT has collected the following (Journal of Mental and Nervous Diseases) résumé of the rates of transmission of nerve impulses obtained by different observers:

Motor Nerves.	Lobster	Fredericq and Van de Velde, 6 metres per second.	
	Frogs	Marey,	20 metres per second.
		Clawson,	21 " " "
		Helmholz,	27 " " "
		Lamansky,	31 " " "
		Bernstein,	32 " " "
		Kenc,	20 " " "
		Marey,	30 " " "
	Mammals	V. Wittich,	30 " " "
		Hemholz,	34 " " "
		Chauveau,	65 " " "
		Jaeger,	26 " " "
		Marey,	30 " " "
		Shelske,	40 " " "
Sensory Nerves.—Mammals.		Helmholz,	50 " " "
		Richet,	50 " " "
		Kohlrausch,	94 " " "
		Bloch,	132 " " "

Homœopathy and Life Insurance.—"With few exceptions, life insurance companies refuse to accept the services of homœopathic physicians as examiners of applicants for policies," is the complaint of a homœopathic journal. A few years ago it was claimed that the companies gave better rates to persons enjoying homœopathic treatment, but it was found that this was only the case with the Homœopathic Life Insurance Company, an institution that speedily became bankrupt. These facts are most suggestive.

Sugar in Urine.—Middle-aged persons of gouty habit, with a tendency to eczematous eruptions, frequently present sugar in their daily urine, in quite appreciable quantities. This may be mistaken for diabetes proper, but should rather be termed "gouty glycosuria." The probable cause is insufficient oxydation to consume all the sugar and fat taken as food. Uric acid being deficient, fat accumulates in the tissues and viscera, and may lead to fatty degenerations.—*Med. World.*

Sanitary Conventions.—On December 5th and 6th, the Michigan State Board of Health will hold a Sanitary Convention at Vicksburg, Mich. Full arrangements are being made for an interesting and successful meeting. These conventions are performing an immense amount of good work among those who best appreciate it, and are most benefited.

Gratitude as a Disease.—A doctor in Bootle, England, has the following printed on his prescription blanks: Gratefulness of the patient is part of his disease, is most prominent when the fever is highest, lessens during convalescence, and disappears as health is re-established. Hence, prescriptions only for cash.

The Southern Surgical and Gynæcological Association.—The next session of this society will be held in Nashville, Tenn., November 12th, 13th and 14th, 1889. Members of the medical profession are cordially invited to attend.

Anent Antipyretics.—SEMMOLA declares that the administration of antipyretics in continued fevers, produces a poisonous rather than a beneficial effect, the repose secured being at the expense of vital force.

Dr. Joseph Beale, formerly Surgeon-General U. S. Navy, died in Philadelphia, on September 23d.

Cholera has broken out furiously at Hydrabad, beginning at a Hindu wedding party.

Therapeutic Brevities.

On the Physiological and Therapeutical Action of Methylacetanilid (Exalgin).—After referring to the chemistry of this substance, which was prepared for the first time by Hoffmann in 1874, by heating monomethylanilin with chloride of acetyl, and stating that this tedious and costly process has not been found adapted to the manufacture of the article on a large scale, and that newer and simpler processes have been substituted therefor, Dr. Gaudineau (Bulletin Generale de Therapeutique), comes to the following conclusions regarding exalgin:

Physiology.—1. Exalgin is an aromatic toxic derivative, capable of acting energetically upon sensibility and the motoric nervous system, and later upon the respiratory and circulatory system. In toxic doses it acts upon the blood

globules, like all poisons of the same class, and diminishes the energy of gaseous changes therein.

2. It kills in doses of 45 centigrams per kilogram of weight of the animal; the equivalent of toxic power is therefore very high.

3. In mortally toxic doses, the animal exhibits violent convulsions and insensibility; it dies quickly from asphyxia.

4. In toxic, but not mortal, doses (20 centigrams per kilogram), phenomena of impulsion are observed. The temperature is not reduced, except when administered in small repeated doses during several hours.

5. With feverish patients, to which the remedy has been administered, more accentuated troubles have been observed.

6. It acts first upon sensibility; its action upon thermogenesis comes later on and is accessory.

Therapeutics.—1. Administered in doses of from 20 to 40 centigrams, to patients free from fever (which may be considered as the normal physiological condition), it has produced no ill-effects.

2. In doses of from 25 to 40 and even 80 centigrams, it has considerably modified the pain in subjects affected by neuralgia or any painful phenomena.

3. Though exalgin is toxic in the proportion of 45 centigrams per kilogram of weight, such is sufficient basis for declaring that in therapeutic doses it is absolutely inoffensive; it is less dangerous than aconitine, digitaline, and all alkaloids of this class which are frequently prescribed.

4. The therapeutic dose varies from 25 to 80 centigrams, to be administered during the 24 hours.

5. In these doses, exalgin has never produced any other troubles than vertigo or ringing in the ears. We have never observed any especial action upon the skin, anything but very light and transient itching, with the exception of two cases. It is an excellent anæsthetic agent, so much the more valuable, because it does not irritate the stomach; and the doses need not be large.

7. Farther it is remarkable in action in neuralgias, but has proven less constant in pains of rheumatic origin.

Pharmacology.—Exalgin is slightly soluble in cold water, but is easily dissolved in feebly alcoholized solutions. Having no taste it is easy of administration, either in powder or in slightly aromatic solutions. The following formulæ are suggested:

Exalgin, 2.50 grammes.
Spirits of peppermint, 15.00 grammes.
Dissolve, and add
Simple syrup, 30.00 grammes.
Water, 195.00 grammes.

Each tablespoonful contains 25 centigrams of exalgin.

Another formula is especially recommended on account of its keeping qualities:

Exalgin, 2 grammes.
Tr. orange peel, 5 grammes.
Syr. orange flowers, 30 grammes.
Distilled water, 120 grammes.

Dissolve the exalgin in the tincture, add the syrup to the water. Each tablespoonful contains 20 centigrams and each teaspoonful 5 centigrams of exalgin.

On Pilocarpine in Deafness.—Dr. Fields (Br. Med. Journal) says:

"I would ask the profession to suspend their judgment for a time on the question as to the efficacy of pilocarpine injections in labyrinthine diseases, and also in chronic catarrh of the middle ear without Eustachian obstruction. I have had more successes than failures in my own selected cases, and I am continually hearing of encouraging results from others.

"1. A medical man consulted me some time ago, and said he was so deaf that he was afraid he must give up practice. I suggested he should try pilocarpine injections for six weeks. He now writes: 'I used nightly for six weeks, with almost a complete cure.'

"2. A lady aged 34, very deaf for 15 years, says: 'I am glad to say I have received much benefit, and I can now hear general conversation and take part in it.'

"3. A lady who had been deaf 17 years, unable to hear without a trumpet, wrote: 'On the first day I was injected I was unable to hear a watch or clock tick. On the ninth day, noticed sound of my own voice; on the fifteenth day, could hear my own watch tick for the first time for eight years; twenty-second day, noticed immense improvement, heard bells, knocks, watch two inches distant from right ear, and faintly at left; fiftieth day, continued improvement; fifty seventh day, heard sermon with trumpet; sixty-fourth day, heard sermon without trumpet.' She remarks on the general result: 'Immense improvement in hearing; can now hear all the clocks in the house tick. Much easier to maintain conversation with one person. Much more conscious of sounds in the house.'

"Dr. H. M. Jones says (Practitioner's Handbook on Diseases of the Ear): 'It is a question if we avail ourselves of the action of pilocarpine as frequently as we should. It is probably the most certain and powerful of all our drugs in cases suitable for its administration, where the reduction of vascular tension is our object, and in which we desire to check effusion and control the tendency to extravasation.'"

"These are exactly the conditions in the earlier stages of Ménière's disease and other forms of vertigo in which labyrinthine effusions are threatened. I may add that I first used pilocarpine subcutaneously in labyrinthine vertigo in 1879. I have since repeatedly advised and resorted to its use in labyrinthine vertigo. My success has been marked in some instances, and in others, failure as complete has followed. Notwithstanding my unfavorable relations with this drug in one memorable case, I consider as a reducer of vascular tension, especially in ocular hypertension and effusion, when given subcutaneously in appropriate cases, it stands unequalled, and that, prudently administered, it is as safe a remedy as any other powerful therapeutic agent we are daily using for other therapeutic indications.'

"Dr. H. Barrett has used it in four cases, who expressed themselves as hearing with much greater facility. He believes that the full benefit of the treatment could not be gained in a less time than six weeks, and it is probable that in many cases an even longer period would be better.—*Lancet and Clinic.*

Toxic Effect of Ten Grains of Antifebrin.—Case of pulmonary tuberculosis. Dose of ten grains of antifebrin given in milk on May 31st, at 2 P. M. In fifteen minutes the patient was of a glow. In half an hour he was excessively red over the whole body, and perspiring profusely. At 3 P. M. the temperature had fallen from 103.1° to 98.3° F. He then complained of feeling cold and numb in the legs and feet, and began to shiver. The coldness spread up the trunk, the redness of the body disappeared, with the exception of a slight hectic blush on the cheeks, but the sweating continued. At 4:30 P. M. the patient was semi-conscious, deathly pale, and cold, but still sweating, and the temperature in axilla was 97° F. At 6 P. M. I found the patient semi conscious, pale, and cold. Heart-sounds feeble, and pulse could just be felt at the wrist. Pupils dilated; respiration shallow, and of a sighing character. The thermometer in mouth and axilla would not rise above 95°. At 6:30 the patient was at his worst, and apparently moribund, and the pulse could not be felt at wrist. Warm brandy with ammonia and digitalis was administered by mouth. Hot bricks were applied to soles of feet, calves, spine, and axilla, with mustard poultice over the heart. In an hour's time the surface of the blood had become warmer, pupils contracted to light, respirations and heart-sounds stronger, and pulse could be felt at wrist; but the thermometer registered 96 2 in the axilla; at 8 A. M. it was normal; at 11 A. M., 100 4°, and all symptoms of collapse had disappeared. The patient could recollect nothing of what had happened, and was apparently none the worse. Three days later, two grains of antifebrin were tried with a similar, though very much slighter, result. The patient lived fifteen days longer, with an average temperature of 102.6° F.—Dr. James Wilding, in *British Med. Jour.*, Sept. 14th.

Observations on the Use of Glycerin Enemata in Children.—During a period of four months glycerin enemata were used at the Evelina Hospital for the treatment of constipation, to the exclusion of purgatives. The children were not allowed to pass more than two days without an action of the bowels. A carefully-prepared table is submitted, showing the result of two hundred and fourteen injections in sixty-three children. One drachm of glycerin was given in one hundred and fifty-six cases, one drachm and a half in forty-eight, and two drachms or more in but nine.

In one hundred and fifty-four instances the injections were followed by normal motions, in twenty-six they were loose, and in twenty-four, of more than normal consistency or composed of scybala. In ten only did the enema fail to act. In no instance was there unpleasant symptoms, either local or constitutional. No child was found whose bowels failed to respond to the glycerin stimulation at one time or another.

As regards the time of action, ninety-five injections were followed by motion within five minutes, ninety within thirty minutes, while with the remainder the time varied from thirty-five minutes to eleven hours. The failures, or cases of delayed action, were in tubercular patients or those who had undergone operation, and were therefore restrained from exercise or movement.

After a brief summary of the action of various cathartics in common use among children, the author expresses himself as very favorably impressed with glycerin enemata, which are easy of application, unattended by pain, quick and natural in action, and followed by but few failures.—*Lancet.*

Hypodermic Injections of Ergot in Facial Neuralgia.—For the relief of facial neuralgia hypodermic injections of ergot are incomparably superior to aconite or gelsemium. Any one who has used it will never resort to either of the above-named remedies. I have used it the last six years, and have never had it fail in but one case. In that case there was evidently organic disease. Ordinarily one injection relieves the pain permanently; sometimes two; and in one very severe and obstinate case which had gone through the hands of several physicians without relief, it required three. After the third injection he never had a twinge of pain. I put it in the temple, as nearly over the seat of pain as convenient. I used the plain extract, and have it made on purpose for hypodermic use. One minim represents two grains of ergot. Of this I use from eight to twelve minims blood-warm, at one injection, and without diluting. In order to make this a success, two things are essential. One is, to have a fresh and pure article of ergot to make the extract from, and the other is, to have the extract reasonably fresh. If kept long, it is not only worthless, but irritating. When properly prepared and fresh, it produces more or less pain for ten or fifteen minutes, and when the pain from the injection subsides the neuralgia is usually gone, and does not return.

I have used this treatment for sciatica and other forms of neuralgia, but not with very satisfactory results.—Dr. Stewart in the *Peoria Med. Mo.*

On the Physiological and Therapeutic Action of Strophanthus Hispidus.—On the basis of a synopsis of former labors, and of various experiments instituted on dogs, and in view of observations in a variety of heart affections, Dr. Emile Delsaux, of Brussels, comes to the following conclusions:

1. Strophanthus in small doses renders the pulse stronger and less frequent; arterial tension is increased. In toxic doses, the systolic contractions become very frequent and very brief, followed consequently by enormous increase of blood pressure, to which is added sudden cessation of the heart in diastole. Respiration ceases last.

2. It exercises an irritating action directly on the muscle fibers of the heart.

3. Its action on the heart is the same as that of muscarine.

4. It does not act on the vaso-constrictors.

5. Under physiological conditions, the diuretic action is uncertain.

6. Under pathological conditions, it renders the pulse less frequent, more vigorous, and more regular; promotes diuresis, causes the disappearance of dropsical swellings, and improves the subjective condition of the patient. —*Deutsche Medizinal Zeitung.*

The Efficacy and Application of Nerium-Oleander.—Dr. Pouloux, in Bull. Gen. de Ther. (CVIX, 1889, p. 393.), says he extracted the leaves and bark of the oleander, belonging to the family of the apocynæ, with 60 per cent. alcohol; evaporated, and then employed the extract thus obtained, first, with animals subcutaneously (0.05 gramme) and then on men internally (0.20 per diem, or 0.05 per dose).

With frogs 0.05 gramme after 35 to 40 minutes, proved to be a lethal dose; with rabbits, weighing 1300 grm., 0.50; with men, the extract exhibited a pronounced action on the heart and on diuresis. It regulates the heart-beats; the thread-like pulse becomes full, firm, regular; symptoms of asystole disappear and pronounced diuresis ensues. On discontinuing the remedy, the action ceases, and on repeated employment, the action returns unweakened. If the medication is prolonged, no unfavorable collateral effects of any kind result.

By reason of the sphygmographic tracings, and of his careful observations, the author ranks the oleander extract among the remedies exercising a pronounced tonic effect, and regards it as a possible substitute for strophanthin. The author does not decide what constituent of the oleander, that is, of the extract, it is which must be regarded as the active principle—whether oleanderin, pseudo-curarin, oleandric acid, neriin, neriantin—but leaves this to be decided by future investigation.

Improved Treatment for Tinea Tonsurans.—The Medical Record, June 1, gives the principles of Dr. Harrison's treatment of this affection as presented by him in the British Medical Journal.

He uses two sets of agents—first, a solvent, by the action of which the fungus is exposed in its hiding places in the cuticle and hair-follicles; and, second, a parasiticide to come in contact with and destroy the fungus.

For the first he recommends a solution of liquor potassæ, spts. wine, and iodide of potassium; for the second, a solution of mercuric chloride in spirits of wine, and water.

After the application of the first solution the softening action of the alkali allows the iodide to soak into the parts, afterward combining with the mercuric solution, forming in the tissues about the fungus a very excellent parasiticide, the bin-iodide of potassium.

He finds that ointments are better, however, because of the fact that they are more readily applicable, and are longer retained in contact with affected parts, and accordingly employs:

℞ Caustic potash, gr. ix.
Carbolic acid, gr. xxiv.
Lanolin,
Cocoa nut oil, āā ʒ ss.

M. Rub well together and add some essential oil if desired. Apply night and morning.

Dangers of Antifebrin.—The cases of antifebrin poisoning are multiplying. Dr. Pauschinger (Muench. Med. Wochenschr., 1889, 19), reports one such case—that of a strong man, 34 years old, who took at intervals of one hour five powders, each containing one gramme of antifebrin, for the relief of a supposed fever, when violent diarrhœa ensued, which confined him to his bed for ten days. Dr. E. Fuerth (Wiener Med. Presse, 1889, 16) reports another case in which a girl suffering from pain in one side of her head, took four grammes of antifebrin as a remedy. Nausea, eructation, pains in the stomach, and frequent vomiting followed quickly. The patient became almost unconscious. Cerebral symptoms and violent delirium soon succeeded. This condition continued for almost two days.

Besides, antifebrin, like the equally or even more dangerous antipyrin, put up with directions for use, may be purchased at every drug store, and the attention of the public is daily called thereto by newspaper advertisements.—*Archiv der Pharmacie*, Sept., 1889.

Pepsin in Diabetes.—The Practitioner (London), says that the late Surgeon-Major E. B. Gardener records a case illustrating the benefits of pepsin in diabetes mellitus. The patient was a native of India, aged thirty, who had suffered for two years, and was blind from cataract. He was restricted to milk or buttermilk, bran bread, and meat two or three times a week; and ten grains of pepsin were given thrice a day. The urine immediately diminished in quantity, and became of lower specific gravity; and at the end of six weeks the man was so far improved that, though not well, he was able to take starchy and saccharine substances with impunity. The advantages claimed for this mode of treatment are:

1. That the pepsin can be given in addition to other remedies, and during observance of dietetic rules.

2. That it permits a relaxation of strict rules of diet before they beome injurious.

3. That it never causes, but frequently relieves, any troublesome affection of the skin.

Danger of Chlorodyne.—A curious case of poisoning is reported from New South Wales. A woman who was suckling twins took a dose of chlorodyne at night and suckled the twins afterward. In the morning they showed signs of narcotic poisoning, and died during the day.—*Australasian Med. Gazette.*

Medical Progress.

Genital Irritation in Boys.—The personal hygiene of the human infant and that of the puppy present strongly contrasting features, which are not by any means creditable to our superior intelligence. The tongue of the canine mother is constantly engaged in removing from its offspring the excretions adhering to it at birth, or as a result of urination and defæcation, and the genitals particularly are objects of grave maternal solicitude. Quite a different plan is followed in the case of the human infant. It is washed, certainly, but in the process the genitals receive no more attention from the nurse than the corners of a room from a lazy housemaid. It is then packed in dlapers, so that fæcal and urinary discharges are preserved in accurate contact with the hitherto neglected genitals, and thus it continues, till lapse of time, fœtor, or caprice, suggests to the attendant the possible propriety of a change. If to these be

added the frightful uncleanliness of mothers in the lower ranks of the working class—although unfortunately this is not peculiar to them—much of the great mortality of childhood, and the moral and physical decrepitude of those surviving that period, may be accounted for in a manner as convincing as it is unsatisfactory.

A momentary comparison of the male and female genitals during infancy, shows that boys labor under greater physical disadvantages than girls, and explains the limitation of the present question to genital irritation in boys. Thus the genitals of girls are so prominent that their inflexions are within the observation of the nurse, and the meatus urinarius so close to the surface that the contraction of the bladder ejects the urine almost without contact with the surrounding integument. In boys, the glans penis being as a rule covered by the prepuce, the meatus urinarius is concealed, and even under the most satisfactory conditions some of the urine is retained in contact with the mucous membrane of the glans and prepuce. Under ordinary circumstances this contact of healthy urine may lead to no great evil, but the inevitable acid dyspepsia of infants, with its acid urine, sooner or later exerts its influence, and genital irritation occurs.

The mucous membrane and glands are unnaturally excited, while secretions increase and are pent up by adhesions. Thus the irritation is not only maintained, but intensified. The boy is in a condition of frequent irritation, and seeks to relieve it by purely physical means, as remote from moral influences as the scratching of the adolescent victim of scabies. He rubs himself, but quickly discovers that tugging at the prepuce is much more effectual. Continued pulling elongates it, its orifice contracts—at first spasmodically and later on organically—till finally, in severe cases, the prepuce "balloons out" during micturition, and straining weakens the abdominal wall, and hernia may result.

Case 2 is a striking example of the truth of these remarks. But the fact which I am anxious to emphasize is, that continued irritation of the genitals induces a habit of manipulation which may persist long after the irritation ceases, and which, if retained till puberty, leads to the practice of masturbation in its most odious sense.

A recent controversy in the British Medical Journal has brought this question into unusual prominence, and some of the statements there advanced are very suggestive. There is a squeamishness shown in referring to the subject at all, and an acknowledged difficulty in acquiring accurate information. I cannot help thinking that, if sufficient notice had been taken of the important part played by genital irritation in the development of this habit, both squeamishness and difficulty would have disappeared. It is rather singular that the average professional mind views with satisfaction the extensive literature gathered around the subject of syphilis, and that the acutest intellects in the profession should find an ever-increasing interest in the study of its multifarious manifestations, whilst this subject of masturbation is described as disgusting, and its discussion carefully avoided. He would be deemed a strange physician who neglected the study of syphilis, or refused to treat its victims, because of its usual relationship to immorality, and yet extraordinary considerations somewhat similar to these seem the only rational explanation of the evident "boycotting" to which the discussion of this practice is subjected. It cannot be denied that, after a certain age, the practice is essentially immoral and disgusting, but I have already indicated with sufficient clearness the conclusion that during infancy and early childhood it is purely physical.

This proposition cannot be too strongly insisted upon, since its contradictory is chiefly responsible for the obscurity in which the whole question lies. Parents can give us most valuable information, but if our inquiries suggest that we consider their children "moral lepers," they will indignantly refuse it, and accurate information will become impossible. The practitioner who believes in the purely physical theory of genital manipulation, and clearly expresses his belief at the outset of his inquiries, will never fail to secure the intelligent co-operation of the parents. This, at any rate, has been my experience; for, although the children are usually brought by their mothers, I have never hesitated to investigate in necessary cases, and in none have I wounded maternal susceptibility or womanly modesty. A goodly number have, indeed, come with suspicion of genital irritation already roused by observation of cases which I had previously treated.

Here is probably the best place in which to describe briefly a few recent cases:

Case 1. Aged seven years. Been ailing for a year, and under medical treatment. Previously active, intelligent, and healthy. Now he is apathetic, unable to stand or walk, "plays with himself," and suffers from nocturnal enuresis. Prepuce long, orifice contracted, with inflamed edges, and penis very excitable. Circumcised. Nocturnal enuresis at once ceased; in a few days he tried to walk, and within a month walked a mile without support. Former intelligence had then returned.

Case 2. Aged three years. Double hernia; cannot stand or walk; always "in doctor's hands." "Plays with himself." Circumcised. In a week or two he began to "walk on the grip," and within a month he could walk alone. Hernia gone at end of three months.

Case 3. Aged three years. Very rickety and enfeebled. Frequently wakes crying, and is then found grasping his erect penis. Nocturnal enuresis. Circumcised. Nocturnal disturbances entirely ceased, and health rapidly improved. An interesting feature in this case was that when three months old he had "inflammation of the bladder," of which the chief symptom was retention of urine.

Case 4.—Aged five years. Paraphimosis with superficial sphacelation. Has been often flogged for "bad habits." Circumcised. Parents believe that he has ceased to manipulate, and his health has greatly improved.

Case 5.—Brother of last, aged eighteen months. Rickety; never has tried to walk; manipulates. Circumcised. The mucous membrane so firmly adherent that it left the glans raw and bleeding. Practice ceased. "Walked on the grip" in a few days.

Case 6.—Aged four months. Fretful since birth, and seems never to have grown. Has cried incessantly for over a week. Hernia.

Circumcised. Crying ceased at once—chloroform may have eased spasm; and weight was more than doubled in a few weeks. At end of two months the hernia had almost gone, and the improvement of health persisted.

CASE 7.—Aged six weeks. Has not thriven since birth. Penis very excitable. Prepuce "balloons out" during micturition, which is only accomplished after much straining. Double hernia. Circumcised. Within a week the mother found the child much heavier to carry, and the father commented upon the great facial improvement. This is a usual result in these cases.

CASE 8.—Aged two years. Double hernia. Health good. Circumcised. The mucous membrane much inflamed, adherent, and retaining much secretion.

The last two cases have been only recently operated upon, and consequently the full results aimed at cannot yet be expected.

It is scarcely to be hoped that those who have not pursued this plan can be so impressed with its results that they will entirely accept the conclusions which my statement of them indicates I have arrived at, but the following propositions will receive their assent:

1. Serious health disturbances co-exist with genital irritation.

2. These disturbances cease coincidently with the removal of this irritation.

3. The method adopted for its removal is safe and unobjectionable, and is therefore worthy of experimental adoption.

The health disturbances (excluding hernia, which has received sufficient attention from others) may be summarised as nutritional, motor, and psychical impairment, and the acquirement of a habit which aggravates these results, and becomes a cause of moral degradation in the near future. All these results may be ascribed to abnormal excitability of the sexual organs, and no arguments need be advanced in support of the proposition that these results will vary with the age of the child. The arrival of puberty particularly will tend to change their character. A brief consideration of these variations will give an importance to the subject which each may estimate for himself, and may perhaps merit future treatment.

The condition of the crossed pyramidal tracts at birth, and for some time after, seems to warrant the conclusion that so far as the execution of volitional impulses is concerned, the infant is impotent, and that the life of its nervous system is in a manner exclusively centered in the medulla and cord (VIRCHOW). But the more perfect development of the posterior columns and direct cerebellar tracts suggests that, from the first, the infant organism is influenced by external conditions, so that it acquires the desire and seeks for the power to modify them to suit its conscious necessity. Be that as it may, it seems certain that the higher nerve-centres are gradually brought into relationship with the reflex centres in the cord, and it requires no perspicacity to see the importance of healthy reflex action at the time of the establishment of this relationship. A contrary condition can scarcely fail to delay this natural process, and at the same time react injuriously upon the higher centres. Further reference to this is beyond our space, yet it seems to afford in general terms an explanation of the motor and physical impairment observed in the cases cited; and the nutritional defects may be accounted for in a somewhat similar manner. It has been well said that "given a certain amount of permanently depressed health and rickets ensues." All these cases were rickety.

Enough has been advanced to show that this subject of prepubertal genital irritation is worthy of our serious consideration, and that it is the duty of the profession at large to educate parents up to a higher standard of personal hygiene for their children.

But it may be asked "What is to be said of the origin of masturbation during adolescence?" This is not nearly so common as is supposed, and in the great majority of cases is due to the contamination of early manipulators. There are indeed other cases in which boys acquire the habit for themselves. These I account for on the supposition (warranted by observations) that the glans penis at puberty tends naturally to emerge from the obscurity of the prepuce—just as, contrariwise, the female genitals lose their prominence at the same period—and a certain measure of irritation is consequently inevitable. As with the infant and child, the same means of relief are sought, but the results are the more serious, because now we have to contend with a developing sexual instinct. Here, again, it would seem that if we remove purely physical causes, we might reasonably hope to diminish this practice, and the only method which seems to me safe and unobjectionable, simple and complete, is circumcision.

I have not referred to the immunity from diseases due to venery in after-life which might thus be aimed at, for this aim can have no place in our practice; but other diseases may thus be lessened or avoided. In India, for example, I believe it is not unusual to circumcise soldiers for reasons quite apart from venereal, and it is said that in some hot climates the practice is followed more as a sanitary precaution than as a religious rite. The operation is of great historical interest, for it was undoubtedly practiced long before ABRAHAM'S time. Apart from other evidences, we cannot but suspect that a nation like the Jews whose ideas of sanitation were so far advanced as to include the "dry earth" system, adopted the practice as much for its substantial benefits to health as out of regard to religious ceremonial. —ALEXANDER DAVIDSON, M. B., Glasgow, in *Practitioner*.

PULMONARY CONSUMPTION.—T. O. O'Donnel, M. D., in a letter to the editor of the New York Medical Journal writes as follows:

So much has been written upon consumption that it seems like presumption to attempt anything further, and yet the subject is far from exhausted, nor is its status entirely satisfactory to the practical physician.

The *bacillus tuberculosis* is acknowledged by all as an entity, by many as the sole *causa morbi* of tuberculosis, by the few and more conservative as a mere sequence or, at most, as one only of two factors causing the disease. Our fathers taught that in certain individuals there was a diathesis, either inherited or acquired. What did they mean by a diathesis? Simply this: If a rattlesnake bites a non-venomous snake, a dog, or a rabbit, certain morbid phenomena result. If the venom is examined

microscopically, it will be found swarming with bacteria, having a wonderful power under certain conditions to promote putrefactiou. If, however, this venom is injected into a rattlesnake, there will be no effect other than traumatic. The non-venomous reptile, therefore, has a physiological condition, or, as our fathers would say, diathesis, entirely different from the rattlesnake's. This diathesis can be inherited. To understand how this occurs, let us briefly review the three or four well-known laws governing the generation of plants and animals. These laws are as follows: 1. A plant can place no constituent in the seed not possessed in itself. 2. All parts of the plant are subservient and contribute to the production of the seed. 3. The seed contains all the constituents of the parent plant or plants, and these constituents have a ratio to the constituents of the parent plant. 4 The seed under certain conditions has the power to draw *similia ad simile*. The first law is evident, and needs no example to substantiate or illustrate it. In proof of the second law is the well-known fact that, if cattle are dehorned for generation after generation, horns will at last fail to grow upon the progeny. Under this law it must not be supposed that a constituent comes from a part like a rill from a mountain to be deposited in the *gone*, but that there exists a constituent in the economy to nourish any given part and from this a modicum is laid down drawing to itself similia, and thus the plant or animal generated has a similar part.

In proof of the second law also is the fact that, if a part or an organ is augmented or distorted through successive generations, the augmentation or distortion will appear in the offspring. The story of the *Macrocephali* is a case in point. The dehorned cattle, the bald-headed man, and the eyeless fish are all illustrative. In conformity to this law it appears to me, (I will digress to say) impossible that a disease like syphilis can be transmitted. The germ upon which the disease depends is one fact, or has its own separate organic existence. It is an invader and lives at the expense of the recipient, and can never become an organized constituent of the sufferer. It can, therefore, no more be deposited in the *gone* than the worm in the body of a tree can be transmitted to the seed thereof. The child becomes diseased by contact, as the father or mother did. I have myself seen children perfectly healthy born of syphilitic parents. On the other hand, the healthy child of diseased parents afterward contracting the disease will suffer slightly less than if the parents had been pure.

The worm in the tree is there because it finds that which is pleasant to itself and sustaining to life. This substance it removes more or less from the tree, and, as a consequence, trees generated from worm-eaten trees contain less of those constituents agreeable to the worm, and thus the genera are protected. Small-pox among people who have been vaccinated or suffered the disease becomes comparatively mild, but when the North American Indian, secluded from the virus through a great but unknown number of years, finally meets the microbe, the destruction is terrible. To illustrate the third law, one may examine the seed of the maple. This will be found a miniature tree, differing from the parents only in the quantity of constituents. Grafting is a beautiful illustration of the fourth law. The graft, containing only the ingredients of the tree from which it was taken, accepts only like constituents in its augment from the trees upon which it is placed. The fruit, therefore, is like that of the parent tree.

I have briefly reviewed these laws, not that I think they are not well known and understood, but simply to recall them to mind and that a clearer conception may be had of the term diathesis. Reverting now to phthisis, it will be noticed that those who say that the bacillus is the sole *causa morbi*, also affirm that it has the power of multiplying; that where at first there were only a few, soon there are many. Now, to assert this is to admit the reception of an augment by the bacilli. What is this augment? Whence does it come? Why does it exist in A but not in B? And, is it possible for tubercular bacilli, having *per se* the *vis vitæ* to sustain, to do this and generate themselves without it? Is it not true that, if we knew the nature of this augment and could withdraw it from the human economy, the bacilli must of necessity perish? We may not now be able with the microscope or by direct experiment to demonstrate the exact nature of this pabulum; but, as the astronomer by reasoning from cause to effect predicts the position of an unknown celestial body long prior to its discovery and location by the telescope, so, too, by the same process of reasoning, the physician may and often does discover the hidden origin of disease. There is a law of pathology that, if an apocrisis occurs in an organized body, resulting in a stasis of the substance separated, in whatever part or organ the stasis occurs there will be morbid manifestations. A stone in the bladder, the pus in an abscess, and the deposit in scrofulosis, all exemplify the law. There is also another law, that, if the apocrisis is abnormal in amount, in the part or organ from whence it comes there will be abnormal manifestations, either of the part or of its functions. Anæmia, and dilatation of the heart, are illustrative. In the latter, the thinness of the heart walls is not wholly due to outward pressure, but partly to overwork, the waste of tissue going on more rapidly than repair. Applying these two laws to phthisis, the morbid manifestations of the stasis are apparent to all, and by just as much as these are the easier of detection, by so much the thoughtless physician directs his attention thereto. Under the secoud law, we find that the abnormal evidences are most persistently and constantly noted in the nervous system, and infer that the apocrisis therefrom is the pabulum or augment upon which the bacillus thrives and has its being. I may point to the crystals of cholesterin found in the deposit, which are now known to be a part of the detritus from the nervous system; but other evidences of a clinical nature, inasmuch as they are familiar to all experienced physicians, I need not repeat. There is, however, one remark of Watson's which is very impressive, viz.: precocity of mind and intellect, while it delights the fondness of the parent, awakens the fears of the more far-seeing physician. It is well known that mental activity will produce asitia, nor did this fact escape Shakespeare, who makes Cæsar exclaim- "Let me have men about me that are fat, sleek-headed men, and such as

sleep o' nights. Von Cassius has a lean and hungry look; he thinks too much." *Vice versa*, asitia will produce nervous irritation, and thus the diathesis may be temporarily acquired, as after fevers, from confinement or impure air, or from the actual want of food.

In the latter case the prognosis is much better than in the former, for if the diathesis is inherited it will exist though we make our patient fat, whereas if it is acquired we have only to remove the cause, and the diathesis will vanish with everything depending upon it, including the bacilli. It will be noticed, too, that the inherited diathesis was detected by our fathers long prior to the advent of the second fact, or the one which, united with the former, produces the disease proper. This goes far to prove the initial point to be in the nervous system, as in the precocious child mentioned by Watson. The diathesis acquired through generations of mental worry is, of course, transmitted to the offspring exactly as the *Macrocephali* passed down to their children their distorted heads, and, when once acquired, is so abhorrent to Nature that she stamps it out as soon as possible, even at the expense of destroying some of her most beautiful works. We cannot hope to thwart Nature in her purposes; but, having discovered the bacilli, can we thereby do anything to assist her, as Jenner did with the modified virus of small-pox? Of course, by secluding phthisical persons we may protect those having a temporary diathesis; but what of those in whom it is permanent? Here is a field for experiment, though, for one, I fear the result will be unsatisfactory. In treatment, that physician is most successful who can remove quickly the asitia and nervous excitability. When the condition is congenital, narcotics that do not interfere with nutrition are very useful. In a recent case I was furnished the fluid extract of lactucarium by Parke, Davis & Co., of Detroit. It proved satisfactory, having the beneficial without the ill effects usual to narcotics. In sending a patient from home, not so much asepsis as freedom from care, and a climate affording the greatest possible number of days in which exercise can be had in the open air, is the desideratum. When there is fever, exercise should cease, and be resumed when the fever has been subdued. Another very important point in management is this: No patient should be accepted for treatment, until he fully understands his situation—that it is a fight for life, and that the medication and hygienic rules must be submitted to through a possible period of years.

THE STATUS OF COCAINE IN SURGERY.—In a paper read before the Medical Society of Virginia, Dr. J. E. Wyeth presented the practical application of cocaine in surgery, basing his conclusions solely on personal observations.

"The general rule should be to begin with the minimum, gradually increasing as slowly as possible, always watching the pulse, the face, the respiration, and the pupil. In moderate doses cocaine is a cardiac stimulant; in larger quantities it arrests the heart in diastole. It is never applicable to children under ten or twelve years of age. In using hypodermically, employ a four per cent. solution of the hydrochlorate, twenty grains to one ounce of distilled water, to which one to three grains of boracic acid have been added.

"The technique of operations upon the extremities where the circulation may be temporarily arrested, differs from that on the face and trunk, where absorption can scarcely be prevented. For the first class, the anæsthesia may be employed in two ways: *directly injected in the lines of incision, or directly about the nerves.* Cocaine directly injected retards in a slight degree union and repair of wounds. For this reason it is better to employ the indirect method when possible.

"Fifteen minims will generally be found sufficient to produce anæsthesia, but thirty minims may be thus employed without risk.

"In the *direct* method the solution is thrown exactly in the proposed lines of incision. The advantages are: (1) the rapidity of the anæsthesia, it being practically instantaneous; (2) the small quantity of cocaine employed; (3) the escape of a good part of the injected solution through the wound of incision. This procedure is preferable for incising felons, removing ingrowing or diseased nails, foreign bodies, etc. So general is the application of one or the other of these methods that almost all the surgery of the fingers and toes may be relegated to cocaine anæsthesia. When more than one digit is involved, the greater quantity of cocaine necessary is an element of danger, and suggests the preference of general narcosis with ether or chloroform.

"Operations for relief from Dupuytren's contraction, opening of palmar phlegmons, dissection of a single group of digital tendons for suturing the cut and separated ends, or dividing adhesions, limited bone removal, extirpation of ganglia at the wrist, and of all forms of neoplasms, can be done with perfect satisfaction by the direct method.

"All minor operations upon the legs, thighs, forearms and arms, come in the same category. Any procedure where the necessary anæsthesia can be obtained by the employment of not more than 1 drachm of 4 per cent. solution, may be safely done with this agent.

"In operations upon the trunk the immediate absorption of the solution renders greater precaution necessary. Take the removal of a fatty tumor as an example. In the proposed line of incision carry the needle point into the deeper layers of the skin (not into the subcutaneous fat, for it is desired to reach the end organs of the sensory nerves in the papillary layer), and force out one-half to one minim; advance the needle a fourth of an inch and repeat the injection, and so on as far as the needle will reach from the original puncture. Re-insert the needle and repeat the method just described until the line of anæsthesia is established. In this manner an incision as long as three inches may be made without pain, by the judicious distribution of from ten to fifteen minims of 4 per cent. solution. The anæsthesia is almost instantaneous, and is evident by the pallor of the overlying cuticle. The knife should divide the skin just through the middle of the anæsthetized line, and the dissection continued laterally until pain is experienced.

"The application of this method may be made in fatty tumors, measuring from three to four inches in the longest measurement; cystic tumors of a diameter of two inches or less; all

forms of neoplasms, angiomata, moles, cicatrices, etc., not covering a larger area than four square inches; removal of superficial foreign bodies; exploration of abdominal wounds down to, but not through, the parietal peritoneum. Surgical lesions of the scalp may be included in the same category with those of the trunk. Upon the face and exposed parts of the neck some modifications are necessary. Since scars are to be avoided if possible, cocaine is not so free from objections as elsewhere. By reason of the great vascularity of the face, repair is usually rapid and thorough, yet the delicate and exact apposition of the edges of the wound will generally require more time than cocaine anæsthesia will insure. It is, however, of great service here, and all small disfigurements from moles, warts, nævi, scars, impacted bodies, etc, may properly be removed under cocaine anæsthesia.

"Upon the eye its effect is too well known to justify any remarks on its use in this department of surgery.

"In the buccal cavity cocaine has a wider range of application. Tumors of the buccal wall of not more than one-half to one inch diameter, may with this agent be painlessly excised. Cysts of the lips, chronic fissures or ulcers, adhesions, etc, may also be removed. Upon the tongue small epitheliomata or suspicious ulcers are rendered perfectly insensible, when from 5 to 20 minims of a four per cent. solution are injected beneath and around their base. Complete cleft of the soft palate in the adult can be painlessly closed by applying the solution to the mucous surface by means of a mop or brush. For the larynx, nose, and naso-pharynx cocaine is in every-day use.

"In genito-urinary surgery cocaine has found a field of great usefulness. Within the last four years the author has rarely employed general anæsthesia in internal urethrotomy for single or multiple stricture, regardless of location.

"For searching of the bladder, catheterization, cystoscopy, etc., this agent is also of great use. In very painful cystitis twenty to thirty minims in the bladder will often give immense relief. In applying an escharotic to phagadenic ulcers —preferably the actual cautery—the injection of ten to fifteen minims beneath the ulcer will give perfect relief from an operation otherwise very painful. Warts and other neoplasms are likewise anæsthetized."

Fever Ptomaines.—In a report on the relation of the ptomaines or animal alkaloids to some of the infectious fevers, Mr. A. P. Luff publishes the results of a research having for its object to ascertain whether any ptomaines occur in the urine of the typhoid and scarlet fever patients. The method adopted was to agitate a quantity of urine, previously rendered alkaline by the addition of solution of sodium carbonate, with half its bulk of ether, then, after standing, removing the ethereal solution, filtering, and shaking it with solution of tartaric acid, which upon settling carried down with it any animal alkaloid present in the form of a soluble tartrate. This tartaric acid solution was separated from the ether, rendered alkaline with sodium carbonate, and again agitated with half its bulk of ether, the ether being afterwards separated and evaporated, and the residue dried over sulphuric acid. When normal urine was examined in this way no alkaloid was detected; it was therefore assumed that when an alkaloidal substance was obtained by this process from urine of a patient suffering from one of the infectious fevers, it would have been one produced within the system during the course of the fever, care being taken to work only upon urine collected from patients who neither previously nor at the time were taking any alkaloidal or antipyretic medicine. From the urine of a female typhoid patient, collected while the fever was at its height and her temperature ranged from 102.5° to 104° F, Mr. Luff obtained a small quantity of a white crystalline substance, which exhibited all the characters of an animal alkaloid, but which, when converted into hydrochlorate, gave reactions not corresponding with those given by any previously known animal alkaloid. The urine from a male typhoid patient, passed during the twenty-second and twenty-third days, and with the temperature ranging from 99.5° F. to subnormal, gave negative results. Urine collected from scarlet fever patients during the height of the fever yielded a small but appreciable quantity of a white crystalline substance, soluble in water and faintly alkaline, which gave with reagents, precipitates that also differed from those given by any other known animal alkaloid.—*British Med. Journal.*

Brain Function and Human Character. —In a paper read before the Anthropological Section of the British Association, Mr. Bernard Hollander, of Vienna brings forward some interesting observations on the possible connection between the areas allotted to various brain functions and the evidences of human character. He draws a suggestive parallel between the conclusions of Ferrier and other geographers of the cortex cerebri and the less exact investigations of the early phrenologists. He reminds us, for example, that the territory assigned as the source of the facial nerve (the ascending parietal and mid-frontal convolutions) nearly coincides with the position of Gall's "organ of mimicry." A similar agreement exists between the supposed centre for taste in the temporo-sphenoidal lobe and the organ of "gustativeness;" between that for mental attention (the first occipital convolution) and Combe's area of "concentrativeness;" that for the facial elevators (the posterior frontal area) and imagination; for the platysma, "the muscle of fright" (ascending parietal) and Gall's apprehension area; for angry expression (superior temporo sphenoidal) and destructiveness. The parallel here drawn certainly wears an aspect suggestive of reality. At the same time, however, we must receive it with a considerable degree of caution. It must not be forgotten that the question of brain localization has two sides. What the localizers, on the one hand, take for solid ground, Goltz has, after careful examination, pronounced to be only a mirage. The functions located in a given area, according to him, are easily assumed by another, as if they were due in each case to a transient excitation of the will. It behooves us, therefore, to accept with reserve even such attractive coincidences as

those above mentioned; though the mere fact of their independent recognition by observers in little or nothing allied to each other, should at least obtain for them what Mr. Hollander asks—a fair consideratiou.—*Lancet* (London), Sept. 14th.

Recurrence of Cancer of the Breast after Amputation.—From microscopic examinations of carcinomatous mammæ amputated by Professor Küster, Dr. Heidenhain predicted a return of the cancer in twelve cases, because parts of the morbid growth had remained in the wound. In the other cases he diagnosed a radical cure—which diagnosis had proved correct up to the date of the publication of his paper—because the operation had removed the whole of the morbid growth. The usual cause of the recurrence is that microscopic parts of the gland or the tumor remain on the surface of the pectoralis major. In thin women, the whole mamma is firmly attached to the muscle, but in obese subjects small glandular lobules are generally attached to the fascia between the mamma and the muscle, so that in amputation above the muscle small particles of the gland may easily be left. Every mamma in which a single cancer node is found, according to Heidenhain, is largely, perhaps *in toto*, diseased. He found the epithelial cells of the acini proliferating in all parts of the mamma, and observed hypertrophy of the peri acinous connective tissue, and he believes that these acini remaining in the wound form the origin of late secondary growths. In the retro mammary fat there are, side by side with the blood-vessels, lymphatics leading from the mamma to the subjacent fascia, and the latter were, in two thirds of the cases, full of metastatic cancerous masses. The pectoralis major itself is only affected when a metastatic cancer-node invades the muscle from the fascia, or the original tumor attacks it by its own simple growth. Heidenhain concludes that, to make amputation of the mamma more successful, it is necessary, even in freely movable carcinomata, not only to remove the whole mamma, but also a superficial layer from the whole of the pectoralis major, and in tumors which are closely connected with the muscle, to entirely extirpate the latter.—*Lancet* (London), Sept. 14.

Mental Powers of Criminals.—The bearing of education on the character and reformation of criminals is discussed by Dr. Hamilton D. Way in a paper on the physical and industrial training of that class. The author assumes that, "It is a mistake to suppose that the criminal is naturally bright. Moral failure and blunted intellect, as a rule, go hand in hand. If bright, it is usually in a narrow line and self-repeating." The criminal's malpractice has its origin in blunted or non-developed nervous areas, and is indicative of wrong-headedness. Whatever may be said of the motives or incentives that lead to crime, the fact remains that the head of the criminal is wrong. The time has gone by in which to argue that to educate the criminal is to make him a more accomplished and successful scamp. "It is through physical and mental training, and their composite labor, that the slumbering germs of manhood are fructified, maturing under a firm and unrelaxing discipline." The criminal's mind, "while not diseased, is undeveloped, or it may be abnormally developed in certain directions; the smartness resulting therefrom partaking of low cunning and centering about self. He is deficient in stability and will-power, and incapable of prolonged mental effort and application. His intellect travels in a rut, and fails him in an emergency. His moral nature shares in the imperfections of his physical and mental state." A training is advocated by the author that will awaken the slumbering faculties, and thus set the mind in a normal condition. This training had best not be given by persons connected with the prison, for it might thereby be unpleasantly associated with penal features, but by teachers brought in for the purpose. Dr. Way gives an interesting relation of experiments which he has made with prisoners in accordance with these views, the average results of which are very encouraging.—*Popular Science Monthly.*

Contagiousness of Pneumonia.—Netler, (Arch. Gén. de Méd.), has a long article reviewing the epidemics of pneumonia which have been recorded, and adds a few other instances which have come within his own experience. His conclusions are:

1. Pneumonia is a contagious disease of parasitic origin, and is transmissible either directly or by the intervention of a third person, or by inanimate objects, such as wearing apparel, etc.

2. The pneumococci are not destroyed by desiccation, and are diffusible through the air, but not to great distances, at most the interval between three hospital beds. They maintain their virulence for a period which has not yet been definitely determined, but probably never more than three years.

3. Contagion is possible during the entire course of the disease and even after recovery.

4. The period of incubation averages from five to seven days, but may vary between one and twenty.

5. Patients who have passed through a pneumonia are dangerous both to themselves and their neighbors as living micrococci may be found in their saliva many years after. Thence in part the epidemic appearance of the disease in certain families during long periods, and also its frequent recurrence in certain individuals who have once survived it.

6. Rigid quarantine of the patients seems unnecessary, but other patients and healthy persons should not be brought into too intimate relations with them. The sick room must be kept well ventilated and clean, the sputum disinfected, and the cocci lurking in the mouth destroyed so far as possible.—*Canadian Med. Journal.*

Pediculosis Corporis.—Dr. Harold Stalkartt writes to the British Medical Journal of a peculiar aggravated case of this malady and its treatment: "A. N. G., calling himself a herbalist, came to the consulting room complaining of "blood-poisoning," and, from the look of him, he might have had anything; apparantly, soap and water and he had long parted friendship. He had no home; sleeping under a dyke or in any hovel. His hands were covered by crusts, except a few points which

were in a state of pustulation; the fingers and palms were much inflamed and swelled, and small collections of pus were seen under the hard and thickened palmar cuticle. He was in a depressed and low condition of health and very weak. The backs of his hands were not much affected. His arms, legs, and body were one mass of scabs and filth; pustules were all over plentiful, especially on the neck, and in the hairy scalp. On looking for a cause, I examined closely with a pocket lens, and saw the surface one living, moving mass of animal parasites, lice, pediculi.

"I saw most strenuous efforts would be necessary to "dislodge the living," so I took him into the hospital. His clothes were burnt, hair cut and burnt. He was put into a bath and afterwards smeared with mercurial ointment, and boracic starch poultices put on where there were crusts. He was bathed again in eight hours, and ointment applied again, and another bath. The inflammation subsided, and the skin was left pitted and perforated where the nests of pediculi were dislodged. Such a change had come over him I scarcely knew him again when making my rounds. He has been put on a liberal diet, and is now regaining strength."

MOVABLE HEART.—Of five cases of movable heart studied by Professor Rumpf, three were the results of dietetic and medicinal attempts to cure obesity, one occurred after violent nervous excitement, and in one no cause could be assigned (The Lancet). The chief complaint of the patients was, great debility, and incapacity for work; other symptoms were, pains in the chest, uneasiness, anxiety of mind, vertigo, asthma, and accelerated pulse. One symptom especially is always present in these cases—all the signs become less in the patient when lying on his back, and worse when he is on his side, and he feels better when he is standing up, though the pain does not disappear; occasionally, however, there is vertigo and malaise. The examination of the heart in the erect or horizontal position, and with the thorax bent forward, shows nothing whatever abnormal; when, however, the patient lies first on the left and then on the right side, the abnormal mobility of the heart becomes very distinct. In one case the apex beat shifted thirteen centimetres, in another from four to five centimetres. When the patient lies on the left side, the area of the cardiac dulness seems larger, when on the right smaller, while at the same time the position of the aorta and of the pulmonary artery is also changed; in one case they moved one centimetre in the direction of the displaced heart. Dr. Rumpf considers the movable heart to be not a mere irregularity, but a pathological symptom, as the average normal movement of the heart is at most two centimetres to the left, and one and a half centimetre to the right, as he observed this dislocation in one case of tuberculosis of the lungs, and in one case of muscular atrophy.—*Medical Record*, Sept. 28, '89.

CONJUGAL DIABETES.—Dr. Debove read a note at the Société Médicale des Hôpitaux on the coexistence of diabetes in the husband and wife. Of fifty cases of diabetes, Dr. Debove observed five which existed simultaneously in the husband and wife. The same coincidence was established by Dr. Lecorché, who thought that this coincidence can only be explained in two ways: by the use of the same defective alimentation, or by the cares of life shared in common by husband and wife. Dr. Debove said that he could not accept this explanation, as women, from the nature of their habits and the exigencies of their sex, do not live exactly as their husbands. Hence it is that gouty couples are rare. He would therefore ask if diabetes were contagious; but for the present we must rest contented to register the fact. If new facts should show that conjugal diabetes is not a simple coincidence, it is only then one could propose a theory, which for the moment would be premature. Five or six other members also cited one or more cases in which they observed the coexistence of diabetes in the husband and wife.—*Lancet*, Aug. 24, 1889.

CONSTIPATION:—*In Infants*:

℞ Cordial cascara sag., 7 drachms.
Cord. anisetti, 3 drachms.

M. Sig. Four to fifteen drops once daily in milk.

In Women: Dr. Lutaud (Revue de Therap. Med. Chir.), has found the following most efficacious:

℞ Ferri et ammonii citrat., gr. xxxj.
Ext. cascara sag. fl., ♏xxxij.
Saccharin, gr. viij.
Aquæ destillat., f ℥ iiss.

M. Sig. A half teaspoonful before each meal.—*Therapeutic Analyst.*

WASTING AS AFFECTING STERILITY.—Obesity, when it attains a condition of polysarcia, has a great influence on generation. In man it checks the development of the genital organs if early, and markedly diminishes sexual desire if late. In females, amenorrhœa and dysmenorrhœa result from an excess of fat, which accumulates in the abdomen and exercises an injurious pressure on the utero-ovarian apparatus. In such cases loss of weight is often followed by a return of the normal menstrual function, and fecundation once more becomes possible. Philbert quotes five cases in which loss of weight, brought about by active hydropathic and dietetic treatment, resulted in pregnancy. The ages of the patients varied from twenty-one to twenty-seven.—*London Med. Record.*

POSTERIOR RHINOSCOPY.—The difficulty of making a satisfactory examination of the nasopharynx and posterior nares by posterior rhinoscopy, is well recognized. In the current number of the Centralblatt für Chirurgie, Dr. Dorn states that he has had great success in cases of operations in this region by placing the patient with the head hanging vertically back over the end of a table. He states that in this posture it is easy to introduce a mirror into the naso-pharynx and to see every part of it, and to manipulate instruments, such as forceps and snares, under the guidance of the mirror, just as is done in the case of the larynx. The danger of hæmorrhage in operations is greatly diminished when the patient is in this position. —*Lancet* (London), Sept. 21.

The Medical Age.

Vol. VII. DETROIT, NOV. 11, 1889. No. 21

Original Articles.

NUTRITION AND STIMULATION IN THE DISEASES OF CHILDREN.*

BY I. N. LOVE, M. D.†

At no time in the history of the medical profession has so much attention by so many observers been given to the subject of dietetics as during the past decade. We have now arrived at a definite position regarding the value of food as an enemy to disease, through the labors of PAVY, TRAUBE, RAUTH, PETTENKOFFER, FOTHERGILL, CLAUDE BERNARD, HENOCH, DUJARDIN-BEAUMETZ, and others.

We know that the completest conservation of force and energy is accomplished through food.

If we be properly informed, and take the time to think, we must know that the swarms of tubercular, typhoid, diphtheritic, and other germs which infest the air about us, seeking agreeable subjects for their destructive work, are best antagonized by good food. The well-fed, well-clothed, well-aired child will have but little interruption of its growth in spite of the myriads of bacteria around it.

The most careful, thoughtful study should be constantly given to the dietetics of child-life from the first day of its existence up to the beginning of its manly career, after which time, if properly trained, he can be trusted to manage himself safely.

I cannot hope, with the time at my disposal, to consider exhaustively and systematically my subject, but will give, in an imperfect and disconnected way, a number of points and observations which I trust may not prove uninteresting.

The parents of the children under our care, need to be instructed in a knowledge of the fact that good wholesome food, is force, heat, and life itself. That good rich blood and well-fed nerves, are the preventitives of disease.

Stones in the form of candies (even though they be of the purest) should not be given when the tissues are crying for bread.

Children of all ages need to be forced back to first principles, and made to partake early and often of good, pure milk, which is the ideal food, coupled with "all wheat flour" bread, which is rich in bone- and nerve-building material.

I question whether the profession appreciates the value of judicious "stuffing" with good food those who are born delicate, the product of tubercular or other unhealthy parentage.

I quote from my case book the following as an illustration of the value of this form of feeding. Ella T., born six months after the death of her father, who died of tuberculosis after an illness of three years. Came under my observation when ten months old, a weak puny child of marked strumous diathesis. Looked as though she might develop marasmus, tabes mesenterica, or tubercular meningitis. Her mother was able to furnish her but little nourishment. I at once instructed that she be given all the peptonized milk she could be made to hold, regularly every two hours, at the same time to give in addition a teaspoonful of Carnrick's Beef Peptonoids every four hours. Night and morning she was bathed in peptonized cod-liver oil, gentle massage being recommended at the same time.

The excretory organs were kept properly active, with a view to favoring the assimilation of the foods furnished. I will not follow the course of feeding, nor give the details of the case, but suffice it to say that the child is now five years old. Within six months after coming under observation the child was developing a heartiness and healthfulness surprising. Up to the present time she has had no illness. I have had her under observation constantly for the regulation of her diet only. The "stuffing" plan has been followed religiously. She is a picture of health and a striking tribute to the value of good food.

GRAVES, the great Dublin physician, said that he desired to have inscribed upon his tomb the epitaph: "He fed fevers." How the many wasted and wan victims of fever would bless the name of GRAVES did they know how much they owe to him the fact that their fever is now fed rather than starved.

If it be a fundamental fact that a man loses on an average each day, in health, 20 grammes of nitrogen, and burns 250 grammes of carbon, and that the azotized and carbonaceous ingredients of his food shall furnish this amount of nitrogen and carbon, how important for us

* Read to the Academy of Medicine, St. Louis, Oct. 23, 1889.

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to furnish food that is easily assimilated, to the victims of disease where the loss from the burning process must be so enormous.

In the continued fevers and other chronic diseases of children, as well as adults, we must bear in mind the statement of CROSSAT, that death arrives when the weight of the body is reduced by 40 per cent. of its natural standard, and that Prof. BURCHARDT has said that it is not what one eats which gives him strength, but what one utilizes.

It should not only be our effort to provide against the possible fatal 40 per cent. loss, but the great exhaustion, long suffering, bed sores, slow convalescence, and wrecked constitutions, which may follow a lesser loss of weight.

With a view to the furnishing of a food which may be utilized to the fullest by the hungry, weary, worn, and burning tissues of the fever victim, we should give our constant attention to the subject, aiding the attendants of the sick-room with suggestions and practical demonstrations. Organized capital has, fortunately, developed great possibilities in the direction of feeding the sick in these modern days. In peptonized milk we have that which we can absolutely rely upon as being promptly utilized. It is most readily prepared by adding to a pint of milk, warmed to about 100° F., a tablespoonful of Parke, Davis & Co.'s liquid pancreatin, with 20 grains of sodium bicarbonate previously dissolved in a gill of water. The mixture is kept in a warm place until the opaque whiteness of the milk gives place to a greyish color, and a distinct but not too pronounced bitterness is developed in it. As soon as this stage of change is reached, the milk should be moved to a refrigerator, or cooled rapidly by other means, to prevent further action of the pancreatin. It should not be kept more than a few hours after it is prepared; the best way is to make it fresh as often as it is wanted, and this involves no more trouble than would be required for preparing the simplest article of food. The milk, if completely peptonized, is already practically digested and ready for immediate absorption. It is no longer susceptible of coagulation by heat or by the action of acids.

A very convenient way is to use Parke, Davis & Co.'s tablets, or compressed pills, of pancreatin, 2½ grains, put up together with separate tablets containing each 10 grains of sodium bicarbonate. Put a pair of the tablets which contain a quantity of pancreatin sufficient to peptonize ½ pint of milk, in ½ gill of tepid water, and stir at intervals until they are completely disintegrated; then add ½ pint of milk previously warmed to blood heat, and allow the mixture to stand in a warm place until peptonization has proceeded to the desired extent.

Milk containing a large proportion of casein will sometimes curdle under the influence of the pancreatin. This difficulty may be obviated by increasing somewhat the proportion of water and of pancreatin, or reducing that of the milk.

In many cases of sickness the sense of taste is somewhat obtunded and the slight bitterness developed in the peptones is not objected to; if it should be, however, the digestion should not be carried to the extreme limit.

Where good fresh milk is not advisable, or the proper preparation of it be inconvenient, the Carnrick Soluble Food, which is a predigested condensed milk, is admirable.

We lean not upon "broken reeds" when we call to our aid also "Bovinine," Murdock's Liquid Food, and Carnrick's Beef Peptonoids.

I have in my mind now a case of a child urgently in need of cod-liver oil, where the same demoralized the stomach so as to preclude its use. The beef peptonoids were substituted, and the child was fed large quantities every day. The building up and fattening was very pronounced by the end of two months.

I believe no one will question the statement that one of the chief dangers in diphtheria, the continued fevers, and many other diseases of children, is death from exhaustion or heart failure. This danger can best be averted by judicious nourishment and stimulation.

In a paper read before the annual meeting of the South Carolina Medical Association (Med. Record, Sept. 28, 1880), Dr. F. W. P. BUTLER, of Edgefield, S. C., reports a case of gangrene of both legs following several weeks of continued fever. There were also present immense putrid bed sores over sacrum and both hip bones. The patient had been deserted by the one in attendance upon him, upon the grounds that his case was hopeless. Dr. E. amputated both legs about six inches below the thigh joint, and eventually saved the patient.

I cite the case as an illustration of what the starving process may do for a victim of continued fever. I desire to make this point (and you can stick a pin in it), that in all cases save, and except, where the stomach absolutely rejects all forms of nourishment, the presence of a bed sore is evidence of neglect of duty upon the part of the physician or of his subordinates.

External inunctions with oily matters, as first recommended by TAYLOR, of London, are of great value. Equal parts of olive oil and melted suet, applied every evening to a child whose skin is burning from fever, with bounding pulse, restlessness, sleeplessness, thirst, weakness, will afford relief to a wonderful degree. If the case be scarlet fever, a proper amount of carbolic acid may be added to relieve itching; and at the same time contagion is limited.

There can be no question of the relief of the acute discomforts; the remote effect is also an

advantage, as no doubt the skin and tissues beneath are more or less nourished by the oil.

We should not lose sight of a previously emptied rectum as a vehicle for the introduction of completely peptonized foods, as very marked absorption is secured through this medium.

In spite of the opposition of LALLEMAND, PERRIN, and DUROY, I believe the proposition of LIEBIG made long ago, that alcohol, like any other non-nitrogenous alimentary principle, is consumed by oxydation. He believed that it was second only to fat as a respiratory material.

PAVY takes the position that even though a small portion does escape from the system unchanged, the bulk which is ingested is lost sight of, and presumably is appropriated in the system.

However one may theorize, the clinical facts remain that alcohol is a food of special value in the exhausting diseases, whether affecting children or adults; that it diminishes tissue metamorphosis and economises the consumption of material in the body.

As a diffusible stimulant, alcohol in one form or another may not only urge on a failing heart, eliciting force, but as well aid in supplying it.

In the diseases of children where stimulation is especially indicated, such as continued fevers, diphtheria, etc., I have found Tokay wine to be the most desirable form. It is almost the only alcoholic stimulant that children will take willingly. PAVY, than whom we have no higher authority, says: "Tokay far excells all wines, and holds, in fact, a unique position. It is one of the most universally famed of wines, and always commands a price which places it only within the reach of the wealthy. It is made from the juice which flows spontaneously from the over ripe grapes. It ranks among the sweet wines, but with its sweetness it possesses an exceedingly rich, aromatic, mouth-filling wine flavor."

HENOCH, of Berlin, says: "Pure Tokay is an admirable aid in the nourishment of atrophic infants. My teacher, ROMBERG, was accustomed to say, Tokay was not alone 'lac senile,' but also 'lac juvenile.'"

The tributes from such high authorities to the value of Tokay, have been thoroughly justified by my experience, more particularly of the past ten years.

One of my own children, a victim to a nine weeks siege of continued fever, was greatly supported by Tokay wine.

One great difficulty experienced for a number of years was, the extreme high price of the Hungarian Tokay. Three dollars per bottle placed it absolutely beyond the reach of the great majority of sufferers. The California Vintage Co., 21 Park Place, N. Y., some years ago introduced to the medical profession of the East a brand known as the "Royal Tokay." It at once became very popular, and is now used to the almost complete exclusion of the imported article. The Royal Tokay first came under my observation something over a year ago, since which time I have used it continuously with my patients, it giving in every instance the completest satisfaction. The cost of the Royal Tokay is one half of the imported article, which brings it within the grasp of the masses.

Brandy, as we all know, occupies the front rank in public estimation, of all the different stimulants. Its purity, and the richness and delicacy of its flavor, give it the position that it holds, and renders it suitable to be chosen in any case where a spirit is required, either as a food or a therapeutic agent.

The term brandy is derived from a corruption of the German *bramtivein* and the French *brandevin*, and means burnt wine, or wine subjected to the influence of heat. It is in fact the product of the distillation of grape juice which has undergone alcoholic fermentation.

There can be no question that it is the ideal stimulant to be given in all cases where disturbance of the alimentary canal is an accompaniment.

I have frequently sustained my patients for days by the use of diluted brandy, where all else in the form of food or drink was rejected. It is peculiarly valuable in cases of gastric congestion, gastritis, the irritable stomach of typhoid fever, and other similar conditions.

The developments of the past few years have demonstrated that much of the imported brandy is impure and adulterated, therefore it is gratifying to know that we have produced in our own country a brandy that is absolutely reliable.

I have been using, exclusively, for many months in my practice, the Royal Grape Brandy of the California Vintage Co., and in no case have I had occasion to regret it. I therefore feel justified in accepting in full, [basing my acceptance upon clinical experience] the following, which appears in the editorial column of the N. Y. Med. Journal, Dec. 18th, '87:

"We are gradually learning that various articles of American production are far superior to any that can be imported, and that California Brandy is one of them. In particular the "Royal Grape Brandy" furnished by the California Vintage Co., 21 Park Place, N. Y., we believe to be unsurpassed by any brandy made in France, whether we consider its flavor or its purity; and rarely equalled. It is smooth to the tongue and delicate and fruity in both taste and aroma, and a considerable trial of it has satisfied us of its absolute freedom from extraneous substances. Considering the very moderate price asked for it, really not

greater than one has to pay for good whisky, it seems to us a duty on the part of physicians to employ it with their patients."

I present for your consideration the following conclusions:

1. The most careful consideration of the diet of children from the day of birth should be given on the part of physicians and parents, with a view of building up in the child a power of resistance against disease.

2. The majority of the diseases of children can better be treated dietetically than medicinally, though medicine should not be despised.

3. Of course, in diptheria and the exanthemata, and some other diseases, we have a specific germ which must never be lost sight of, but in all other diseases acute or chronic, elimination, tranquillization, stimulation and nutrition are the "big four" combination upon which we can rely.

4. In typhoid and other continued fevers a greatly opened condition of the vital sewerage system, a daily cleansed skin, proper sleep and quietude, mental and physical, a safe temperature [not permitted to go too high, or brought down too low] should be maintained, along with judicious stimulation and persistent feeding—feeding to the limit of the assimilative powers of the alimentary canal [and the skin as well if need be]—never losing sight of the necessity in the majority of cases for the predigestion of all foods.

A persistent course of treatment such as this, will, I believe, accomplish the saving of nearly all cases, a record of 100 per cent. recoveries.

ENDOMETRITIS AND ITS TREATMENT.

BY PROFESSOR O. TERRILLON.

The anatomical study of the alterations which cause endometritis sufficiently explains the symptoms of the disease.

The most important functional symptom is an excessive uterine secretion or discharge having purulent modifications. Also women thus affected are liable to uterine hæmorrhages, which may supervene either in the intervals between the monthly flow, constituting a metrorhagia, or may appear simultaneously with the menses, when the latter last longer, are more abundant than normal and, perhaps, come so close together that all idea of the proper time of the monthlies is lost. The patients at the same time have a feeling of weight in the perineum; sometimes severe abdominal pains radiating towards the loins; and the uterus is so sensitive that coitus is painful if not intolerable. The vaginal touch discovers an augmentation of the uterus, which may attain a length of three or four inches, and pain is produced by pressure on the cervix. In simple metritis, without complications on the part of the annexes, the vaginal culs-de-sac are free. On specular examination is also observed a *pseudo-ulceration* due to the cervical mucosa being everted and congested.

Authorities have endeavored to make a distinction between metritis of the neck and metritis of the body of the uterus, but as the entire mucous membrane is generally involved, metritis cannot be limited in the sense in which it was formerly taught.

It will not do to place much reliance on medical treatment, since the malady can only be ameliorated by the local application of appropriate remedies.

If, until within the last few years, physicians have been shy of applying medicinal substances within the uterine cavity, it was because grave accidents sometimes followed, owing to the absence of ordinary antiseptic precautions. But since antisepsis has become a necessary part of surgical practice, this fear has in great part disappeared, and the results of intra-uterine treatment have been much more favorable. Nevertheless, we ought to redouble our precautions before any operation on the uterus, and assure ourselves of the perfect asepsis of the hands, finger-nails, and instruments. Moreover, we should disinfect and render aseptic the atmosphere which surrounds the uterus, the vulva, the vagina, and the vaginal culs-de-sac, as far as possible.

In the practice of intra-uterine medication, it is generally necessary to dilate the cervix. In fact, though the external os and the canal of the neck may be sufficiently patulous, the internal orifice will generally resist the passage of instruments especially designed for the purpose of applying remedial agents to the uterine cavity. Dilatation not only allows direct exploration of the cavity, but it also puts the uterus on the stretch, and spreads out the folds of the mucosa, enabling the physician to dress the diseased membrane like an open wound.

The early attempts to dilate the cervical canal were endeavors to separate the walls of the neck by means of metallic dilators with parallel blades. Such procedures, however, proved too harsh, entailing, as they did, liability to traumatic laceration, and hence were soon abandoned for substances which have the property of absorbing liquids from the tissues with which they are placed in contact, thus entailing progressive and slow expansion. The substances which have been employed for this purpose are: (1) prepared sponge tents; (2) tents of laminaria digitata; (3) iodoform tampons.

The former, before they are fit for use, require long and delicate manipulations in order to render them aseptic. Therefore it is necessary that the surgeon shall himself prepare the

* Surgeon of the Salpêtrière, Paris, France.

tents, if he would make sure they are of proper quality.

The augmentation of volume which is attained by the laminaria tent is considerable—four or five times. By placing side by side several of these, we may succeed in obtaining a complete dilatation of the uterine neck.

When iodoform gauze tampons are employed, they are introduced in series; are withdrawn every 24 hours, and replaced by a greater number, and so on, gradually bringing about the dilatation desired.

In order to insure perfect antisepsis, the vagina must be irrigated by an injection of warm water in order to wash out albuminoid matters which may have accumulated in its folds, and then followed by a second irrigation with sublimate solution 1:1000, which last may be carried into the cervical canal (*guttatim*) by means of a double-current cannula. If laminaria tents are used, these should also be washed and brushed, and then soaked a quarter of an hour in the same solution, and then when dry, immersed in a ten per cent. solution of iodoform in ether—the ether on evaporating, leaves on the surface of the tents a layer of iodoform which sufficiently ensures asepsis. When the gauze tampons, are employed, they also should be soaked a day or two in sublimate solution and dried in the air—even the threads attached thereto must be disinfected; next they are soaked in a solution of iodoform and ether, and dried. Even now they are not best used immediately, but kept for a time in a sterilized tightly stoppered flask.

Surgeons now make less use of prepared sponge than formerly, as it demands a longer time to prepare, and is apt to have a rough surface that interferes with introduction and tends to irritate or wound the diseased mucous membrane. Again, in producing dilatation, its irregular surface may insinuate itself into the folds of the mucosa, rendering extraction difficult, and it may bring with it shreds of membrane.

In order to introduce into the cervix the substance which has been chosen to effect dilatation, it is necessary to make use of the speculum. The cervix is then fixed by means of a tenaculum, which enables the operator to exert gentle traction thereby dragging the uterus a little lower down, rendering the neck more easily accessible, and consequently facilitating the introduction of the tent.

Having passed a sound to determine the dimensions and direction of the uterine cavity, the laminaria is seized by a pair of long-handled forceps, and gently pushed into the uterine canal, even to the fundus if its length will permit. Sometimes it happens that it cannot be pushed through the internal os, when it may be left where it is for twenty-four hours, when it will probably be possible to enter it as far as desired. Tampons of iodoform gauze are placed in the vagina against the cervix to prevent the laminaria pencils from being expelled. Dilatation provokes a flow of a rose-colored liquid which finds vent by the canal in the centre of the tent.

At the end of from twelve to fifteen hours, the tent has done its work, and must be removed and replaced by a larger, in order to effect the dilatation desired; or a number of small tents may be introduced side by side. Three or four "séances" are usually sufficient to almost completely efface the cervix, for the cervical canal alone is affected, the body of the uterus being extremely difficult of dilatation.

If the operation has been done with proper care and precautions, the patient should have no elevation of temperature, and the tent when withdrawn should have no bad odor. The only inconveniences exhibited are, expulsive pains provoked, which, however, are easily quelled by an opium suppository, or a lavement of starch and laudanum. Of course the patient is kept in bed throughout these procedures.

When the tampons are employed, by increasing every day their number and size, dilatation takes place progressively. This method by successive packing is good, but demands seven or eight days in order to obtain satisfactory results.

Other methods of dilatation might be mentioned which are more rapid, such as the method of HEGAR, of KOLTENBACH, or of LAWSON TAIT, the latter by means of solid bougies of variable calibre. As these bougies are of all sizes, it is necessary to have a considerable number so that each smaller may be followed by the size next larger. This is a very rapid procedure, the dilatation being obtained at a single séance, but is not altogether free from danger of traumatism.

Uterine dilatation being effected, the mucous membrane is brought to view, and can be explored with the finger, the uterus being slightly depressed. It is now possible to produce a favorable modification in the diseased mucosa by means of curetting, or by the application of various medicinal substances.

Curetting was first introduced by RECAMIER, and abandoned shortly afterwards, only to be again taken up by a great number of surgeons. Since the advent of surgical antisepsis, curetting of the uterus has ceased to present the dangers formerly accruing thereto, and become a favorite procedure in treating endometritis. It consists in scooping or scraping away all the exuberant parts of the diseased mucous membranes. By the traumatism produced on the internal surface of the uterus, it favors the cicatricial shrinkage of the diseased parts, vessels, glands, and by the removal of the fungoid granulations, hæmorrhage is sup-

pressed and the purulent discharges diminished.

Curettes of various models are used: and it is important that the uterine dilatation should be sufficient to easily permit the play of these instruments in the cavity. The fungosities are scraped away down to the level of the healthy tissue as completely as possible, until the instrument no longer removes any debris of the mucous membrane, and the tissues creak under its use. During the operation, the cavity should be irrigated by means of a double current tube, and aseptic cotton pledgets mounted on a long pair of forceps, or on a whalebone probe, employed to dry out the uterus.

But trifling hæmorrhage is caused since the large vessels are not attacked, the fleshy granulations alone being removed—those which have become friable, and which are the cause of the perpetual discharges, hæmorrhages or otherwise, peculiar to the disease; consequently the more the uterine tissue is scraped the more the tendency to bleed is lessened; and all blood flow ceases as soon as the curetting is ended.

After the abrasion of the mucous membrane has been completed, the uterine cavity is tamponed by means of strips of iodoform gauze, to maintain a certain dilatation and prevent infection of the wound; and this dressing is repeated every four or five days.

If it is found that the lesions of the mucosa are but little developed, before curetting it may be well to endeavor to modify the character of the endometrium by the application of medicinal substances. Perchloride of iron; pure tincture of iodine; chloride of zinc ($\frac{1}{10}$); all have often proved satisfactory. EMMET counsels the employment of glycerized creasote.

Again, medicinal crayons are sometimes introduced with good effect. Pencils of nitrate of silver have been left *in situ*, but their action is very soon annihilated by the production of a coating of the insoluble albuminate of silver. Some, too, employ crayons of Carquoin's paste, which produce eschar of the entire mucosa. Of all these mentioned, however, I prefer the perchloride of iron, because of the ease with which it is managed; but before canterizing with it, however, it is necessary to take care to rid the uterine cavity of all blood and clots. Moreover, it will not do to use an excess of the liquid, and neighboring parts must be protected from its action.

SOME NOTES ON CASCARA SAGRADA.

BY F. E. STEWART, M. D., PH. G.*

The other day I happened to pick up an article on "New Remedies" which spoke very highly of cascara sagrada in habitual constipation, but it contained a caution about employing too large a dose on account of its tendency to gripe.

Now, I have used cascara sagrada for about ten years very constantly, and my opportunities for observing its effects, both in hospital and private practice, have been considerable, yet I have never had knowledge of a case of griping therefrom if employed in a proper manner.

The question of dose is an all-important one. Five drops of the fluid extract taken night and morning will be found sufficient for some, while others require, perhaps, a teaspoonful and then only obtain slight laxative effect.

I am in the habit of using Parke, Davis & Co.'s fluid extract, formula of 1887. This I always do. It is my habit to specify P., D. & Co.'s first, because I have good reason for knowing that I thereby secure a preparation made from a drug which has been lying in stock for two years to develop its activity; and because I am accustomed to the use of this particular brand. I do not pretend to say that no other house makes as good an article, but I do say, because I have seen it happen again and again, that different brands produce effects that differ, on account of the different methods taken for curing the crude drug, and in the menstruum and method for preparing the fluid extract. It furnishes a preparation nearly devoid of bitterness, is effective, and it may, if desired, be made even more attractive by combining with equal parts of cascara cordial, or with fluid extract of liquorice. Of this mixture I generally employ ten drops night and morning, telling the patient to increase or decrease the dose drop by drop, as required, being guided therein by the amount of laxative effect produced.

There are a number of combinations of cascara sagrada, several of which are excellent. The cordial is an elegant preparation, and one which I some time ago suggested as a vehicle for the administration of various drugs, especially compounds for indigestion. The following is one that I have deemed very effective in the treatment of certain forms of dyspepsia:

℞ Cascara fluid extract,
Tincture of capsicum,
Tincture of ginger,
Compound spirits of lavender,
āā ʒ j.
Bicarbonate of sodium. ʒ ij.
Cascara cordial, sufficient to
make 3 fluid ounces.

Mix. Dose, teaspoonful before meals. Increase or decrease the dose, according to its effects on the bowels.

The following pills contain cascara sagrada:

Aloin, Strychnine and Belladonna Comp.—Aloin, ½ gr.; ext. belladonna, ¼ gr.; strychnine,

* Demonstrator of Materia Medica and Pharmacy, Jefferson Medical College, Philadelphia; Demonstrator of Pharmacy, Woman's Medical College, Pennsylvania, etc., etc.

$\frac{1}{10}$ gr.; ext. cascara sagrada, $\frac{1}{2}$ gr. This combination will be found excellent in the treatment of congestive headaches when there is tendency to constipation. In constipation from atony of the bowels it is remarkably efficient. Acute nasal catarrh, tonsilitis, sore throat with fever, and dyspepsia, are much improved by its use. It acts as a stomachic tonic, and as a stimulant to muscles, nerves and heart. It stimulates also the secretions of the alimentary canal, and increases its peristaltic action. Dose, one or two pills night and morning.

Anti-Constipation Pill (Carson's).—Ext. cascara sagrada, 1 gr.; ext. rhubarb, 1 gr.; ext. nux vom., $\frac{1}{4}$ gr.; aloin, $\frac{1}{4}$ gr. This is a valuable combination; on account of the rhubarb, the tonic and astringent action following the laxative effect makes it valuable to correct atonic indigestion accompanied by diarrhœa. It is also an excellent stomachic tonic, improving the appetite, promoting the action of the liver, and increasing the flow of gastric juice.

Anti-Constipation Pill (Goss).—Podophyllin, $\frac{1}{4}$ gr.; ext. colocynth, $\frac{1}{4}$ gr.; ext. butternut, $\frac{1}{4}$ gr.; ext. nux vom., $\frac{1}{8}$ gr.; ext. hyoscyamus, $\frac{1}{8}$ gr.; ext. gentian, $\frac{1}{4}$ gr.; ext. cascara sagrada, $\frac{1}{4}$ gr.; powd. Canadian hemp, $\frac{1}{2}$ gr. This combination acts as an excellent purgative in cases of habitual constipation or portal congestion, and is a useful cholagogue. The hyoscyamus and Canadian hemp counteract the griping tendency of the podophyllin, while the ext. coloeynth increases its purgative action without adding to the griping tendency. It has a calming effect on the nervous system from the hyoscyamus, which also acts as a stimulant to the vaso-motor system, and to the cardiac accelerator apparatus. It has a decided laxative and carminative effect on the intestines, and a very marked sedative effect on the urinary passages. The tonic laxative effects of the cascara are therefore modified and added to, by the valuable synergists contained in the pill; and it will be found an efficient derivative in cases of catarrhal or malarial jaundice, and of value in the treatment of prolapse of the rectum, remittent fevers of children, dyspepsia, hepatic derangement, and so-called "biliousness."

Pil. Berberis Comp.—Ext. berberis aquifol., 2 gr.; ext. cascara sagrada, 1. Here we have an astringent bitter, a tonic and stomachic, and an alterative, in combination with cascara sagrada. The pill may be used in the treatment of intermittent and remittent fever, diarrhœa, and dyspepsia. And on account of its alterative effect, it will be found a valuable compound in syphilitic and strumous affections. Where there is pain, soreness, and burning sensations along the biliary or urinary tracts, with a tendency to gravel or gall-stones, it will be found a useful remedy.

Cascara Comp. (pellet's, D'Ary's).—Ext. cascara sagrada, $\frac{1}{15}$ gr.; ext. belladonna, $\frac{1}{60}$ gr.; oleo-resin capsicum, $\frac{1}{60}$ gr.; ext. nux vom., $\frac{1}{30}$ gr.; euonymin, $\frac{1}{6}$ gr.; xanthoxylin, $\frac{1}{15}$ gr. This pill is an excellent stomachic tonic in atonic dyspepsia, and is useful in the treatment of intermittents. As capsicum gives good results in the treatment of functional impotency, and spermatorrhœa from loss of tone; in chronic nephritis to check the waste of albumen; and is beneficial in chronic cystitis and in prostatorrhœa, and as the other drugs in the combination do not seem to contra-indicate it, I should imagine the conditions found in such patients would be met by its use. Euonymin is a purgative, and a cholagogue Its cathartic action is similar to, but milder than rhubarb. It is employed with benefit in some cases of dropsy, in habitual constipation, torpid liver, and pulmonary affections. Xanthoxylin is a stimulant and aromatic bitter, a local and systemic sialagogue, diaphoretic, diuretic, and emmenagogue. It increases the secretions of stomach, intestines, liver, and pancreas. As it also increases the action of the heart and raises the arterial tension, and is contra-indicated in diseases where such action is inadmissable, this action is probably increased by the belladonna present.

Cascara Sagrada and Nux Vomica Pill.—Ext. cascara sagrada, 2 gr.; ext. nux. vom., 1-5 gr. This is a combination in which there is united with cascara a bitter tonic which "stimulates respiration, secretion, appetite and digestion, and sharpens the vision." Peristalsis is increased, and both the motor and inhibitory apparatus of the heart stimulated. Arterial tension is raised; and, as the vaso-motor centres are stimulated, the arterioles are contracted. All of the functions of the spinal cord are exalted, but it does not affect the brain directly. This pill may be used as a stomachic tonic, and as a stimulant to the muscles and nerves of the bowels. In atonic dyspepsia and gastric catarrh, and in constipation from atony of the bowels, it will be found an excellent remedy. It will also be found of great merit in cases of neuralgia associated with dyspeptic troubles and chronic constipation.

Cascara Sagrada, Nux Vomica and Belladonna Pills.—Ext. cascara sagrada, 2 gr.; ext. nux vom., $\frac{1}{4}$ gr.; ext. belladonna, $\frac{1}{60}$ gr. This is probably a better combination than the cascara with nux. It may be employed in the treatment of the same affections; and, as belladonna is useful in the pain of inflammation, particularly that of rheumatism, gout, neuralgia due to peripheral disturbance, sciatica, cancer, and pelvic affections; and in cerebral and spinal hyperæmia, congestive headaches, encephalitis, meningitis, and myelitis, erysipelas of superficial and non-vesicular character, and when cerebral, inflammations of the lungs,

iris, bladder, kidneys and breasts. This pill can be employed in any one of them when not contra-indicated by the presence of the other ingredients. And there are cases where all the ingredients are indicated, and will work together in perfect harmony to produce beneficial results.

Cascara may also be prescribed alone, in the form of extract, made up in pills and sugar or gelatin coated. The pills are made to contain one, two, or three grains of the extract, respectively.

CLINICAL NOTES.

ARSENITE OF COPPER IN DIARRHŒA.

Dr. J. S. ESCHER, of San Diego, California, writes:

I have now tried arsenite of copper in diarrhœa in upwards of fifteen cases, with success in every one, the trouble coming under control at once—that is from one to eight hours—and with no return of the trouble except in one case where the stomach failed to digest food. In this case it would return in from 24 to 36 hours, but in a less aggravated form. I feel confident the remedy will prove of considerable value in ordinary cases of diarrhœa, and in mild cases of cholera infantum and cholera morbus.

A UNIQUE CASE.

Dr. JAS. T. SMITH, of Monticello, Georgia, describes a case as follows:

Was called to see D. C. Sept. 6th, 1888. Found patient restless, with temperature 104°. Reported having had a chill three or four days before. Symptoms and history pointed to remittent fever.

After third day from my visit, fever declined and the whole aspect of the disease changed. There was considerable swelling of the penis and left testicle. Noticed an abrasion on dorsum penis which patient said he had treated with turpentine. The penile swelling became so intense that I puuctured in several places, which to some extent relieved the tension. About this time tumefactiou extended to the right testicle, aud patient began to suffer from retention of urine necessitatiug the catheter twice a day. Poultices failed to relieve the swelling.

About 7th day I discovered a breaking down of the connective tissue, which process ultimately extended to the corpus spongiosum and c. cavernosum. The derma aud connective tissue came away in a foul smelling slough. Sloughing continued down the penis to the scrotum, which sloughed away leaving the right testicle perfectly exposed. All the while carbolic and boracic acid solutious were used to keep down fœtor, and dressings of these solutions were constantly applied. Tinct. chlor. iron and quinine were given internally. Under this treatment the sloughing ceased and patient's general condition improved. Treatment was kept up until healthy granulations begun to appear upon both penis and scrotum, and along the lines of demarcation, when skin grafting was resorted to, taking the grafts from the anterior portion of thigh. This proved successful, and now patient apparently has as good penis and scrotum as before except perhaps the latter has not so much length. As to the diagnosis in the above case I am not clear. Will the patient be able to procreate as before?

[Undoubtedly the sloughing resulted from general enfeebled vitality of the ecouomy arising from the fever, induced primarily by the turpentine. As long as the testicles were not affected there is no reason why the patient should not procreate.—ED.]

Correspondence.

CHICAGO PATHOLOGICAL SOCIETY.

STATED MEETING, OCTOBER 14, PRESIDENT, DR. JOHN D. SKEER, IN THE CHAIR. W. B. COPELAND, M. D., SECRETARY.

DR. J. M. PATTON read a paper ou CARDIAC THERAPEUTICS, in which he said stenosis of the aortic semilunar valves is the most favorable of all valvular lesions, from a prognostic staudpoint.

In regurgitation, the pulse is bouuding (a high up stroke with absence of the dicrotic wave), and voluminous, but may be weak and irregular on slight exertion—the so called Bellinghour's or Corrigan's pulse. Passive hyperæmia of the brain and aortic system, dizziness, ringing in the ears, cyanosis, pain under sternum, along clavicle, and down the left arm, are due, according to PETER, to inflammation of the cardiac plexus. Patients with cardiopathies of this class, of rheumatic origin, do well on a combinatiou of iodide and bicarbonate of potash. Iron, attention to the nutrition, and moderate exercise, are necessary. DUJARDIN-BEAUMETZ relies on *opium* for the relief of cerebral anæmia and dyspnœa.

JAMES STEWART recommeuds for serious heart failure, rest in bed, withdrawal of liquids, full doses of digitalis; if good results follow, diuresis is increased. If the amount of urine falls after increase of digitalis, the drug should be stopped. He gives 40 ℥ of tincture four times daily during three days, but as much as half an ounce may be necessary.

STECKER recommends *ergot* with *digitalis* in diminished arterial tensiou, aortic insufficiency,

idiopathic dilatation, certain stages of arteriosclerosis, and sometimes after violent bodily exertion. With increased arterial tension as in chronic nephritis, with rapid and irregular heart's action, digitalis may not be safe, alone; lower the vascular tension with nitro-glycerin, or other nitrites. He thinks *caffeine* may be better in some cases.

RUMMO and FERRANINI claim, that *sparteine* and *caffeine* affect the cardiac nerves, and the muscle little, or not at all; *adonidin* and *convallamarin*, both the nerves and muscles simultaneously; while *digitalis* and *strophanthus* and their alkaloids, affect the muscle primarily, and the nerves secondarily. Whatever may be the direct method of the action of strophanthus, it is a useful cardiac tonic. Dr. PATTON has used it in quite a number of cases, and while he was not prepared to rank it with digitalis, when the latter can be properly administered, he had not had any distinct failures with it, and had much satisfaction in its use in cases which were not suited to digitalis.

Convallaria majalis was used as early as the 16th century for diseases of the heart. According to SEE, it augments vascular pressure, and the ventricular energy; is useful in palpitations and cardiac arythemia, even if due to valvular lesions; and he also claims that its diuretic powers are greater than those of any other cardiac tonic. Others regard it as a very moderate diuretic.

Caffeine is particularly recommended by DUJARDIN-BEAUMETZ in asystolic conditions. Dr. PATTON has had no marked success with it in such conditions. Its action is similar to digitalis.

SEMMOLA has found caffeine of great value in cardiopathies of bulbar origin, and cardiac arythemia.

Sparteine is hardly reliable in serious heart failures, but in functional disturbances in neurasthenic subjects, or where compensation is not seriously interrupted, it may be useful. Its action is rapid, but it is not always well borne by the stomach. From two to five grains daily may be given.

Adonis æstivalis and *adonis vernalis* belong to the category of heart tonics, and are good oftentimes when digitalis fails.

Attention should always be given to the state of the abdominal viscera, in treating heart lesions, and particularly the kidneys.

Dr. HENRY M. LYMAN, opening the discussion, said: "Dr. PATTON has so thoroughly exhausted the subject that there is very little to add. He has given us a valuable resumé of the opinions of experimentors upon the heart with cardiac stimulants and tonics.

"There are one or two points I would like to speak of in connection with some of the experiments which illustrate the effects of opiates upon the heart, and the action of *sulphate of sparteine* as a substitute for opium. There has been observed what is termed *acute neurasthenia*, following the withdrawal of morphine and opium from persons who have become habituated to their use. It is, as you know, a condition of intense prostration, and the sphygmographic tracings give an irregular, wavy line; the heart being deprived of its customary opiate stimulus, is unable to work efficiently, and the blood current through the artery is consequently very imperfectly outlined. When a person has been in the habit of taking five, six or eight grains of morphia a day, and the morphine has been withdrawn, the person falls into a state of acute neurasthenia. If you give half a grain of morphia, the temporary stimulus it produces is sufficient to restore the typical form of the sphymographic curve.

"In 1887, JENNINGS, of Paris, published some experiments on this subject, and they were repeated by Professor BALL, and the results published in the London Lancet and other medical journals. It is worth while to refresh your memory with the fact that in these cases, when a condition of acute neurasthenia exists consequent upon the withdrawal of morphia, sulphate of sparteine, hypodermatically, secures the same reinforcement of the pulse that is procured by the administration of opium. In this way the heart is sustained, and the patient tided over the period of depression by the use of the drug until the nutrition is sufficiently remedied to enable him to get along without any cardiac stimulant. There seems to be a hope of some substantial benefit from the use of the drug in that way. It should be given hypodermatically, however, as it does not always produce its effect when given by the mouth, and many of these patients are incapable of retaining anything upon the stomach. If it is given subcutaneously in the dose Dr. PATTON mentioned, the heart's action will be sustained, and the patient experience relief.

"There is one point with reference to cardiac therapeutics that Dr. PATTON did not touch upon, and he was undoubtedly right in not dwelling upon it, because it is a therapeutic measure that is of very little repute. Authors generally do not speak with any satisfaction or great commendation of the effect of giving *bichloride of mercury* and *iodide of potassium* in cases of chronic endocarditis. I have no doubt it has been disappointing to many in the treatment of such an affection, yet I have seen cases which seem to indicate a very great advantage from the prolonged use of these drugs.

"A patient came to my office to-day for whom I had prescribed this treatment in mitral stenosis. It was one of those rare cases where there is a presystolic or diastolic murmur—a characteristic prolonged sound before the

systole; the heart was becoming very ataxic, so that the condition of the patient was really a distressing one. He was absolutely incapable of engaging in any active occupation. I gave him this combination of mercury and iodide of potassium, for the purpose of invigorating the heart, but at the same time steadied with *digitalis*, so that it can not be considered a pure case of treatment with these drugs alone. After an absence of a month the patient came back to day, and much to my surprise the murmur had entirely disappeared. The ataxia is still present; the heart's movement is irregular; but the patient's general condition has improved, and the murmur is almost abolished.

"My experience leads me to think that we may attach some value to the treatment of these cases in that way; and if we do not directly modify favorably the condition of the heart valves, or the endocardium itself, we may so frequently improve the general nutrition of the patient as to enable the heart to share in that nutrition, so as to compensate for the difficulties that have been produced by endocarditis, enabling the heart to go on with comparative comfort for a long period of time.

"There are several points of interest in connection with these therapeutic measures which the doctor has so admirably grouped together, that might be touched upon, but I do not think I will say anything more about them, because it is easy for you to refer to the article of Dr. DACOSTA on "Cardiac Therapeutics," which he published last year; and that in connection with Dr. PATTON'S paper really exhausts the subject.

DR. I. N. DANFORTH: I want to insist upon the point I made at the last meeting of the Society—viz., that in every case of cardiac disease, whatever its nature may be, we ought to watch the condition of the kidneys; we ought to look for albuminuria, for it is my belief that in many instances we shall at one time or another find it. That is the first point.

In the second place, I know from my own experience that we shall be most likely to find it after the prolonged use of cardiac tonics. I think we are too much in the habit of overtaxing the heart with digitalis or some other well known cardiac tonic, and of keeping them up until we get a too intense effect from their use. The effect of these remedies, if the cardiac muscle be over-stimulated so that the systole is rendered too intense, tends to the production of albuminuria. The tendency is to the engorgement of the kidney and the overstraining of the delicate vessels connected with it. That is one step towards Bright's disease. There is no doubt but that we do sometimes induce hyperæmia of the kidneys to the extent of inducing albuminuria and even the production of casts by the over-use of cardiac stimulants. That is a point that has not been discussed as thoroughly as it ought to be. I have in a number of instances found albumen in the urine which was not present before the administration of digitalis or convallaria majalis. I have on several occasions used these remedies with a view to experimenting in that direction. I have produced experimentally albuminuria. I have seen it follow a rather free use of these remedies until I have arrived at the conclusion that we use them too freely, and that we drive the heart to the point of producing albuminuria. We are constantly using digitalis as a diuretic. How does it produce its diuretic effect? Certainly not by any functional stimulation of the kidney. It does not produce it by any functional metabolic changes in the renal cells. It is only a diuretic, I think, because it increases the cardio-vascular tension as well as tension of the renal vessels.

Dr. J. M. PATTON: "In closing the discussion, I would like to say a few words in reply to Dr. LYMAN'S remarks with reference to the administration of opiates and sulphate of spartein. The only way I have used opium in cardiac disease has been in the way he has indicated; and we sometimes get very valuable aid from it in that way. In advanced cardiac disease, where the sphygmographic tracing would give you a free, uneven, hilly tracing, without any particular rise or fall, opium seems to steady the pulse, and affect the vascular tension in such a way as to give you a pretty fair tracing. I have a case now under treatment, of advanced cardiac disease, that has been subjected to spasmodic attacks of dyspnœa, which were due, in all probability, to the condition of thickening of the vessels and spasmodic contraction of the smaller arteries. The relief formerly afforded by cardiac tonics failed to appear. The patient had never taken opium in any form, nor sulphate of sparteine. Five drops of tincture of opium, four times a day, were added to the medicine which he was taking. The pulsation in the vessels had been very irregular and uneven, and a considerable throbbing in the arteries of the neck; this quieted down, and the pulse became stronger, dyspnœa was relieved, and the patient in every way better. I think this a valuable method of treating that stage of the trouble, and I am glad Dr. LYMAN made the suggestion relative to the manner in which the sulphate of spartein should be used in connection with opium.

In regard to Dr. DANFORTH'S views about the use of cardiac stimulants, I am heartily in accord with everything he says. I think, ordinarily, the thing is overdone in two ways: In the first place, they are used in a great many instances where they should not be used at all; in the second, they are used entirely too long and in too great doses in many instances. As far as the diuretic action of the tincture of

digitalis is concerned, I believe it is entirely due to the increased blood pressure in the arteries of the kidney; I do not believe it has any particular action on the kidney as an organ. In giving it, and increasing vascular tension, you simply throw that much more work on the heart, and just so far as it affects the vessels it is a deleterious substance to give. I would like to emphasize the idea that in a great number of cases of cardiac trouble which originate in middle or adult life—syphilitic, rheumatic or gouty, or what not—that affect the aortic ring, that aortic affection is only one of a number of changes. It may eventually become the chief one, but in the beginning it is certainly the least. These changes consist of general thickening of the vessels from increase in the intima of the arteries, general sclerosis of that coat, and a general change in the kidney, which is chronic. The kidney changes and the vascular changes are probably the first. They may also be engrafted on chronic endocarditis, but as a rule the main trouble is not with the heart, but with the condition of the vessels, and the kidney.

Albumen is generally found in the urine of these patients with chronic congestion, the quantity being according to the condition of the heart; specific gravity from 1010 to 1035, usually from 1020 to 1025. Quantity of urea varies; albumen and casts generally absent, but the former may be found at times in very small amount. With chronic degeneration the quantity of urine varies with heart's action; specific gravity and amount of urea about as usual; albumen and casts are found more often than in the former condition. Chronic inflammation gives varying symptoms whether it rises from either of the former conditions, and may partake of the character of either, albumen and casts being almost constantly present, urea being generally found in normal amount. The association of these conditions with chronic endocarditis and the relation they bear to each other is a question which will repay investigation.

Delafield has given the most concise and admirable description of these kidney changes which I have seen, which appear in these chronic conditions, and it struck me as being very forcible in connecting these changes with the chronic changes which take place in the vessels and in the heart. In these cases the spasmodic attacks of dyspnœa are due to spasmodic contraction of the smaller arteries, and the dyspnœa is due to the additional labor which is, for the time being, thrown on the heart, which is not able to keep up its work, and it is in this condition that cardiac tonics and vaso-dilators are useful. If we could have a combination that would not only lessen the spasm of the arteries but would also dilate them, take off the pressure, and at the same time furnish power to the heart, we would obtain a remedy from which the most desirable results could be obtained.

I have been in the habit, for a number of years, of prescribing nitrate of potash for these chronic conditions, because I get better results from it as a diuretic than from anything else. When I first began to prescribe it, the action of the nitrate on the vessels did not occur to me particularly, but when I look back I see I got much better results from it than from the acetate, citrate, or the vegetable diuretics, and I believe it was due, probably, to its effect on the vessels. The nitrite is the accredited vaso-dilator, but the good results following the administration of the nitrate would seem to indicate some vascular action also.

In regard to the combination of bichloride of mercury and iodide of potassium, referred to by Dr. LYMAN, that is a very valuable one, and one which I did not speak of because I did not regard them as belonging to cardiac therapeutics so much as I did to a general diathesis or condition. In all cases of heart disease, either rheumatic or syphilitic, it certainly is of the greatest benefit, and whenever I have the slightest suspicion that there is a syphilitic taint, hereditary or acquired, I use that combination. In almost all cases of chronic endocarditis I prescribe the iodide of potash, and I have a number of cases under treatment at the present time that have been under my observation from one to five and six years, which have been taking that combination almost all the time, and I find they get along much better with than without it.

In regard to the question as to the use of digitalis in aortic diseases, I hope the members did not understand that I advocated pushing digitalis in this affection any further than was absolutely necessary to get some stimulation of the heart. The point I wanted to simply bring out was this: that you may have the same conditions from aortic lesion, so far as the hypertrophy, the dilatation, or the degeneration of the fibre is concerned; the same conditions which determine the use or the non-eligibility of digitalis in the case, will be present in aortic lesions as in mitral lesions. You may give digitalis with great benefit in aortic lesions, and it may be harmful if you increase the action of the heart too much. There is no doubt of that. It should be given with care.

The *tincture of strophanthus* I have used a great deal, and I soon found out that a dose of one to five drops was of very little use. I have prescribed Parke, Davis & Co.'s preparation more than any other. It is as efficacious as Merck's tincture, and there is some little difference in the price; and the majority of the patients I treated were of that class where the price was a considerable item. As a rule, we get little or no effect from any dose under ten drops. In a patient entirely new to me I should begin with seven or eight drops, and increase until I had reached the proper point

The Medical Age.

A SEMI-MONTHLY REVIEW OF MEDICINE.

B. W. PALMER, A. M., M. D., Editor.

—Published By—

GEO. S. DAVIS, Medical Publisher, Box 470.

DETROIT, MICH., NOV. 11, 1889.

Editorial.

DANGERS OF CONTAGION AND INFECTION.

At the present time considerable attention is being paid to the subject of leprosy; and from the evidence thus far presented it would seem that this loathsome malady and most other diseases of contagious or infectious nature, are upon the increase.

Leprosy far from being, save in a few isolated instances, confined to Asia and Polynesia, as commonly surmised, is generally apparent throughout the Orient, and already has a firm hold of more than a century's duration in the Occident. In India, where there are nearly a million of lepers, the disease is rapidly increasing, owing, as presumed, to the facilities afforded by English protection and rule, since formerly the afflicted were compelled to commit suicide on penalty of being inhumed alive. Dr. THOMPSON who has charge of the Leper Hospital of the Madras Residency, expresses unequivocally the opinion that the loathsome plague is a constant menace to European civilization, and that it is only a question of time when it will be as common in Europe and America as in Hindustan, if measures are not speedily taken to stamp out the disease in its present habitats; and the same opinion was expressed a year or two since by Dr. BEAVEN RAKE, of Trinidad (West Indies) Leper Asylum.

To be sure, the question whether leprosy is or is not a contagious disease is somewhat mooted, yet few, we fancy, will dare deny its emminently infectious nature, which has ever been asseverated from the time of RAMESES I, down to our own Epoch. The mural records of the ancient cities of Mayax, with an antiquity of fifteen centuries, B.C., according to LEPLONGEON, evidence that leprosy was known at that early date, and considered a perpetual menace to society, and those afflicted therewith were carefully segregated. In reconciling occasional cases of contagion with the numberless instances where such have not occurred even upon intimate contact, it must be remembered that not all can be affected who come within the circle of either contagion or infection—that it is possible for persons afflicted to mix freely in society and exert no pernicious influence, except in rare and isolated cases. Such is exemplified by the history of any and all epidemics. Note the comparative rarity of the accidental communication of syphilis and tuberculosis, as compared with the number with whom absolute contact is made!—and no one will now deny the highly contagious character of these diseases. The fact is, that contagion depends largely upon the receptability of the individual—upon the adaptability of the soil to the germ; but the threatening danger, however, is none the less apparent.

That some legislation will soon be demanded in all civilized countries for the prevention and limitation of contagion and infection from any and all sources, is self-manifest. Already syphilis and tuberculosis are increasing in the United States; leprosy also has secured firm foothold in the Western Hemisphere, having been discovered in several instances in California, Louisiana, and British Columbia; and it has long existed in the West Indies, Mexico, Central America and the maritime provinces of Canada; for more than a century it has prevailed in Venezuela, the United States of Colombo, certain districts of Brazil, in Labrador, and the northern part of Newfoundland. Recently it was discovered among families in Nova Scotia, and the history of the Tracadé Hospital New Brunswick is too well known to require comment.

That leprosy and other contagious diseases may be stamped out by strict quarantine is made manifest by the histories of epidemics and plagues, and the fact that many localities which once knew their ravages, know them no more. Leprosy a few centuries since was quite prevalent in Great Britain, but disappeared, through enforced segregation whereby the unfortunates were excluded from contact with their fellow men; being driven into lazarettos, and on pain of death, compelled to wear distinctive apparel with a bell at the girdle that should warn all people of their approach, they were even denied the privileges of the church. That it was isolation rather than improved social and hygienic conditions, as has been claimed, is evidenced by the fact leprosy formerly obtained in portions of Scotland and Ireland where even now the conditions of existence are as unhealthy and impure, and destitution as complete, as they can well be consistently with the maintainence of life.

The individual selfishness of the human race has ever been, and will be for all time, such that only by strict quarantine enforced by the strongest power of law, can *any* material progress be made in stamping out diseases dangerous to society at large. Small-pox patients

will go abroad, knowing the danger to which they subject their fellow beings: the confirmed syphilide with full knowledge of his loathsome condition still propagates syphilitic offspring, and by impure contact, infects sisters, wives, and sweethearts; and the diseased roué rarely denies himself the pleasures of Venus, because such will sacrifice his paramours. Strange to say, with the present status of society, while there is legal redress for the propagation of disease among the domestic animals, there is none in connection with the infection of the human race.

Doubtless the day will come—certainly it should come—when all infectious and contagious diseases, phthisis included, will be made subjects of police and sanitary control, more or less stringent according to the nature of the individual contagion of each, for all are a perpetual menace to society, and even to the infected themselves, tending to retard and prevent recovery.

The recent death of Father DAMIEN, the leper priest of Molokai, who contracted the disease by contagion, has given new impulse to the study of this and other infectious and contagious maladies. It is now proposed by such distinguished people as His Royal Highness the Prince of Wales, the Archbishop of Canterbury, Cardinal MANNING, Duke of Norfolk, Marquis of Dufferin, Earl of Derby, Sir JOHN LUBBOCK, Sir ALFRED LYKLL, and others, to establish a perpetual fund, the interest of which shall be devoted to a leper and infectious disease ward, separate, or in connection with some hospital in London, and the endowment of travelling studentships to encourage study and inquiry into the etiology of contagious diseases, generally, and especially the cause of the prevalence of leprosy in India, in order to discover the steps necessary to alleviate and eradicate such maladies.

This is certainly a great scientific charity, and aside from his noble heroism and martyrdom, is sufficient to place Fr. DAMIEN, to whom it is directly due, high on the roll of benefactors of the human race.

REST.

Rest is *repose*, or *inaction*, of a portion of the organism, during which the waste caused by the wear and tear of work is repaired—repose of a *portion* of the body, for during life we never find the whole at rest. From the time that the first blood globule begins to oscillate in the rudimentary blood-vessel, until the last sigh dies away in the stillness of eternity, there is no such thing as complete rest.

Human beings are so constituted that they cannot exercise all their faculties at one time. They stand on one foot and rest the other; listen with one ear and then the other; look with one eye while the other is loafing; walk until tired, then sit down to rest; and when weary of an easy chair, get up and take a walk to "stretch the limbs." They talk until their tongues are tired, and then stop to think of what they will say next. So they go on throwing one set of wheels out of gear to let them cool off and get oiled up, while they set another portion of the machine running. Even in sleep, in which they come the nearest to complete rest, they are still hard at work. While the brain is standing almost still, the senses locked up, and the muscles relaxed, there are countless thousands of busy laborers at work, oiling up the whole machinery, replacing a worn-out cog here and there among the wheels, and sweeping out the dust and debris worn off by the friction of the machinery of this great manufactory of thoughts, words, and deeds. When the day workmen stop, the night laborers go on duty, and some of the most skilled artisans are busy during sleep, repairing the tissues.

The work that we do during the day with our heads and hands, is what we get credit for; but when we rest and sleep, there is an important work going on. That branch of labor performed while we rest, is unseen, and, for that matter, unknown by the majority of us, and hence is often neglected.

We are so constituted that the normal, healthful exercise of our faculties gives pleasure. It is pleasant exercise to eat when one is hungry; to rest when weary; to walk when the brain is fresh and clear. In fact to do anything rational, when thoroughly prepared by previous rest, is agreeable. This is not only true of head and hand work, but also of the natural exercise of the feelings and emotions. When trouble comes, the feelings are wounded, relief is found in complaining and sorrow, and pain is washed away by tears. The Omnipoteut set a limit also to human sorrow and suffering. These storms of affliction break over the healthy man or woman, and subside after a shower of tears and give place to the sunshine of hope and happiness. It is the weary and worn who cannot rise above their troubles, who go fretting and sighing in search of rest.

A well preserved nervous system can stand an occasional attack of righteous indignation in which considerable strong temper or passion may be manifested, if time is taken to fully cool off between the heats. It is the continual fretting, grumbling, and growling, without intervals of rest that is wearing and injurious.

The law of harmony between work and rest, when fully obeyed, not only maintains strength, but develops it. All intelligent people know that fact, but many fail to think of it in such a way as to be governed by it. To exercise the muscles of the arms until they are tired and

thoroughly rest them, and again exercise and rest, makes them grow stronger and bigger. So with the brain, it becomes stronger under well regulated exercise and rest.

Let us give a moments attention to the various ways of resting:

First and most important of all, "Nature's sweet restorer, balmy sleep." Of all the ways of resting this is the most complete and important. The time devoted thereto should not be regulated by hours so much as by the requirements of the individual. Some one, perhaps FRANKLIN, said six hours for a woman, seven for a man, and eight for a fool. A little girl friend when told this, said, with much wisdom, "I like the fool's share." While admitting that some sleep too much, the majority get less than they need. Sleep should be taken with great regularity, and be free from all disturbance. Sleepless nights are often spent because of being too irritable from fatigue to rest.

One ought to stop work long enough before retiring to cool down to the sleeping point. Hunger, too, will chase away sleep. We would not recommend late suppers, but some easily digested food taken at bedtime when needed, will often secure a sound night's sleep. We are told that: "He gives His beloved ones sleep," and we know that there is much truth contained in this passage. The consciousness of being right and having done well is the best anodyne, the best sleep producer. There is none too much sleep for the righteous, but there is less rest for the wicked who violate the natural laws.

In addition to the good night's sleep, it is a good plan to take a short nap in the middle of the day. It divides the working time, gives the nervous system a fresh hold on life, and enables one to more than make up for the time so occupied. It is well to guard against too long a sleep at such times, since such is apt to produce disagreeable relaxation. There has been much discussion regarding the after-dinner nap, many believing it to be injurious, but it is nevertheless natural and wholesome.

Much can be accomplished in the way of resting, short of sleep. It is very important to economize the opportunities for rest during working hours in the day. The great principle which underlies daily rest is the relieving of one portion of the organization from duty while the others are at work. This can be done to a great extent. When the muscles are tired and worn from mechanical work which requires but little attention of the brain, stop motion and set the brain at work. The laborer can read, think, and speak, while his weary limbs are at rest. His brain need not be idle because the hammer or chisel has dropped from his weary hand. On the other hand, a man can work with his hands when his head is tired. The book keeper whose head is weary with business facts and figures by five o'clock in the afternoon, has considerable time in the evening to sing, play, dance, dig in the garden or black his boots, all or either of which he may do while his head is partially at rest. There is another very important way of obtaining rest mentally, that is by changing from one occupation to another. The dexterous gold beater when he finds one arm getting tired, takes the hammer in the other; and so may the man who hammers thoughts out of his brain, exercise one set of mental functions while the others are at rest. One may read until tired and then write; may acquire knowledge until weary and then teach to others.

CAUSE OF SLEEP.

Professor BROWN-SEQUARD, as reported by Dr. RUBINOVITCH (Abstract of Report on Physiology in N. Y. Medical Journal), wholly combats the theory that attributes the induction of somnolence to changes in the intercranial circulation leading to cerebral anæmia, on the ground of having frequently observed a hyperæmic condition of the cerebellum, medulla, and upper portion of cord, during sleep. Again, he observes that sleep recurs regularly in animals that have had the cerebrum removed. He further believes somnolence is derived from some sort of peripheral irritation exercising an inhibitory action on mental activity, on the action of certain muscles, and in some degree upon the circulation and respiration. As regards inception, therefore, he regards natural and induced (hypnotic) sleep as practically, though not absolutely, identical.

Though he admits that contraction of the blood-vessels of the retina and cerebral lobes, which are prominent phenomena in sleep, point to anæmia of the brain, he would explain this as merely an evidence of peripheral irritation. Commenting upon the foregoing, the Journal says:

"A diminished supply of blood to the brain may, therefore, have something to do with the induction of sleep, even in the light of the considerations brought forward by M. BROWN-SEQUARD. Moreover, it is reasonable to assume that one of his arguments—that of the regular recurrence of sleep in animals deprived of the cerebral hemispheres— proves too much for the theory of inhibition of mental activity, unless it can be shown that mental activity has its seat in some other organ than the brain. Besides, it may well be doubted whether the abolition of mental action is all that goes to make up sleep, even with the addition of more or less inhibition of the cardiac and pulmonary functions, or whether mental processes are altogether in abeyance during sleep, leaving dreams to be accounted for as proceeding from some other part of the economy than the head.

In addition, we may ask what the periodically recurring peripheral irritation is, and where it is located, that normally starts the nocturnal inhibition that leads to sleep. Evidently 'there are more things in heaven and earth than are dreamed of in our philosophy,' and M. BROWN-SEQUARD, granting his demolition of the theory of cerebral anæmia, has not replaced it with one that is beyond cavil."

PROF. RICORD DEAD.

Cable dispatches state that Prof. PHILIPPE RICORD, the great author and teacher to whom the medical world is largely indebted for the modern ideas of pathology and treatment of venereal diseases, died Tuesday, October 22d.

Probably there are few of the present age who recall the fact that RICORD, though an eminent French medical scientist, was nevertheless an American. Such is a fact, however, for he was born in the city of Baltimore on the 10th of December, eighty-nine years since—viz., 1800. His father, a wealthy ship owner of Bordeaux, met with reverses, and emigrated, ten years before the birth of his distinguished son, to the United States, in the hope to retrieve his fortunes, and resided for a time in Baltimore, subsequently in Philadelphia.

RICORD was educated in the latter city, in part, and at the age of 20 went to Paris to study law, but instead became enthusiastic in surgery after hearing one of DUPUYTREN'S lectures. In 1823, having become an interne, he was assigned to the celebrated surgeon's hospital, but soon lost favor owing to a pun which yet remains legendary in the Latin quarter. DUPUYTREN, one day at his morning clinic, said of a patient dead during the night, "Il a dû mourir du delirium tremens (très-mince)." "Pas si mince" (not so thin), whispered young PHILIPPE, "puisqu'il en est mort." The great surgeon overheard the remark and severely rebuked the punster, adding that with such dispositions ARNAL'S performances at the Variétés would suit him better than a surgical clinic. RICORD at once left DUPUYTREN'S service, and the two never became reconciled. In 1826 he graduated as a doctor of medicine with a thesis on "Sundry Propositions on Surgery," and was going to push his way on in Paris, when loss of fortune compelled him to settle in a small country town near Orléans. However, in 1828, he secured by competition the post of surgeon in the Pitié Hospital. Here he attracted no little attention by his bold expression of radical ideas; and in 1831, while still a comparatively young man, he was made surgeon in chief to the Hopital des Veneriens du Midi, a position he held for twenty-nine years, retiring voluntarily on account of age.

His contributions to medical science have been numerous and most important, but it is chiefly as a syphilographer that he became celebrated. He was the first to show that gonorrhœa and syphilis are distinct affections, and to clearly establish the evolution and different stages of the syphilitic infection. His principal works are: "On the Bivalve Speculum" (1833), "Blenorrhagia in Woman" (1834), "Monography of the Chancre" (1837), "Treatise on Venereal Diseases" (1838-1863), "Blenorrhagic Ophthalmia" (1842), "Syphilization and Contagiousness of Secondary Stages" (1853). Besides he sent many memoirs to the Academy of Medicine, and contributions to the medical press. He also wrote considerable annotations for the French translation of HUNTER'S treatise on "Venereal Diseases." It was at his hospital he did his teaching, before immense classes who loved him as much for his kindness as for his wit and quaint sayings. He was decorated with all the orders of Europe and elsewhere, and scandal has it that the bestowers had personal reasons to be thankful. RICORD would only smile and say he was something like that pedicure who had eradicated corns from many crowned heads in Europe.

He was also at one time consulting surgeon extraordinary, to the late Emperor NAPOLEON; and in 1871 was made a grand officer of the Legion of Honor. Up to a few months since he was in active practice. In Paris he was always known as the "Great American Physician," a title he delighted in, as he alway retained a devoted attachment to the land of his birth. Perhaps there was no man who so delighted in breaking through established conventialities. One of his freaks was to send a *female* dresser with the necessary syringe, fluids, suspensory bandages, etc., to manage injections in gonorrhœa patients and dress an orchitis.

Book Notices.

FUNCTIONS AND DISORDERS OF THE REPRODUCTIVE ORGANS. By Wm. Acton, M. R. C. S. Cloth; 8vo; pp. 250. Price $2.50. Published by P. Blackiston, Son & Co., Philadelphia.

Some idea of the popularity of this work is had by the fact it is now in its seventh edition. Mr. ACTON has done good service, not alone to the medical profession, but to the laity as well, by grappling in a most practical and comprehensive way with sexual vices and derangements. The Lancet (London) remarked recently regarding this class of diseases: "The only way in which the most important functional ailments and aberrant physiological states affecting humanity can be rescued from the grasp of the most disgusting and villainous quackery, and treated with benefit to patients,

is by the scientific and conscientious practitioner openly taking them under his own charge."

In securing such measures, then, the volume before us is an important aid and factor. It is especially valuable in that it may be placed in the hands of the most sensitive of the laity without fear of offending; or given to the adolescent youth with the certainty of benefiting instead of corrupting or in any way exciting a prurient imagination. Regarding Impotence, Sterility, Spermatorrhœa, etc., the bugbear of the ignorant, and sources of inexhaustible revenue to unscrupulous and charlatan practitioners, the work discourses in simple language, and with plain practical common sense exposes popular errors, and the tricks of medical wolves who masquerade in sheep's clothing. We wish every young man and woman between the ages of fifteen and twenty-five might peruse this book, and doubt not many of their elders would be materially benefited thereby.

Medical and Surgical Monographs. Vol. iv. No. 1. October, 1889. Paper, 8vo., pp. 322. Price $1.00. Published by Wm. Wood & Co., N. Y.

The contents embrace "The Influence of the Male Element upon the Female Organism" (15 pages), by John Brown, M. D., being an essay read before the Glasgow Southern Medical Society, in March of last year, and more suggestive than practical; "The Internal and External Temperature of the Human Body as Modified by Muscle-Kneading," by A. Symons Eccles, M. B. (15 pages), being a paper read before the Section of Anatomy and Physiology of the British Medical Association in 1888; and "Diseases of the Breast," by Thomas Bryant, F. R. C. S. This last is a reprint of an English monograph, and a very complete and comprehensive resumé of the subject treated. Indeed, since "On the Breast," by Sir Astley Cooper, nothing has been published in the English language of so practical value.

The Reference Hand Book of the Medical Sciences. Vol. viii. Edited by Alfred H. Buck, M. D. Cloth, 4vo., pp. 801. Price $6.00. Published by Wm. Wood & Co., N. Y.

This, the final volume of this encyclopædic work, embraces subjects alphabetically arranged from *Wormseed to Zymotic Diseases*—79 pages. There is also an appendix of 523 pages, and an exceedingly comprehensive three-column index of 197 pages. We have before expressed opinion as to the merits of the work. It is in no sense a substitute for text books, but is almost invaluable as a work of reference, especially for authors. The chief trouble with such works as text books is, that the science of medicine has become so rapidly progressive during the last two decades, that they are almost obsolete by the time the series is completed.

Clinical Atlas of Venereal and Skin Diseases. By Robt. W. Taylor, A. M., M. D. Parts VII and VIII. Price, $2.50 each: Elephant folio. Published by Lea Brothers & Co., Philadelphia.

The parts before us, as regards color and finish of plates, are quite superior to the preceding numbers, being more true to Nature; and therein is treated *Lichen planus, L. rubra, Lupus,* Chronic Hyperplasia of Vulva, *Molluscum fibrosum, M. sebaceum, Scleroderma, Alopecta areata, Chloasma, Xeroderma pigmentosum, Scabies, Milaria crystallina, Drysidrosis, Impetigo contagiosa, Eczema impetiginodes, Sycosis,* Leprosy, and Potassium Iodide and Bromide eruptions.

The complete series may now be had bound in half Russia, for $27.00, or in Morocco for $1.00 additional.

The Science and Practice of Midwifery. By W. S. Playfair, M. D., LL. D., F. R. C. P., Sheep; 8vo: pp. 670; price, $5 00. Published by Lea Brothers & Co., Philadelphia.

This, the fifth American from the seventh English edition, is edited and annotated by Dr. Robt. P. Harris, who has brought the work up to the present year in all details, including the Porro-Cæsarian operation. The especial advantages that accrued to former editions still obtain, and the book will continue to be, what it has long been, a well arranged and carefully digested epitome of the science and practice of midwifery. More especially is the attempt made therein to elucidate the practical, though the theoretical is far from being neglected. It has no superior in any language as a text book.

Hypnotism. By Frederick Björnström, M. D., translanted by Baron Nils Posse, M. G. Paper, 8vo.; pp. 124. Price 30 cents. Humboldt Publishing Company, New York.

Professor Björnström is one of the best known of Sweedish scientists, and especially prominent for his researches in the domain of Psychiatry. It is rather disappointing therefore, on taking up this volume, to find that it treats of little that is new, but instead, merely traces the evolution of hypnotism through Mesmer, Gassner, d'Eslon, Cagliostro, du Puysegur, Lavater, Braid, *et al.*, down to Charcot and Bernheim. It is, however, as interesting as any work of fiction could possibly be, and the fact that it is far from a scientific work will commend it to lay readers.

Notes and News

A Physiological Charade.—

Pronounced as one letter, and written with three.
Two letters there are, and two only in me;
I am double, am single, am black, blue, and grey,
I am read from both ends, and the same either way;
I am restless and wandering, steady and fixed,
And you know not one hour what I may be next;
I melt and I kindle, beseech and defy,
I am watery and moist, I am fiery and dry;
I am scornful and scowling, compassionate, meek.
I am light, I am dark, I am strong, I am weak.
I am sluggish and dead, I am lively and bright,
I am sharp, I am flat, I am left, I am right;
I am piercing and clear, I am heavy and dull,
Expressive and languid, contracted and full:
I am careless and vacant, I search and I pry,
And judge, and decide, and examine, and try;
I'm a globe, and a mirror, a window, a door.
An index, an organ, and fifty things more.
I belong to all animals under the sun,
And to those which were long understood to have none.
By some I am said to exist in the mind,
And am found in potatoes, and needles, and wind.
Three jackets I own, of glass, water, and horn;
And I wore them all three on the day I was born;
I am covered quite snug, have a lid and a fringe,
Yet I move every way on invisible hinge.
A pupil I have, a most whimsical wight,
Who is little by day, and grows big in the night;
Whom I cherish with care as part of myself,
For in truth I depend on this delicate elf
Who collects all my food, and with wonderful knack.
Throws it into a net which I keep at my back;
And, though heels over head it arrives, in a trice
It is sent up to table all proper and nice.
I am spoken of sometimes as if I were glass,
But then it is false, and the trick will not pass.
A blow makes me run, though I have not a limb;
Though I neither have fins nor bladder, I swim.
Like many more couples, my partner and I,
At times will look cross at each other, and shy:
Yet still, though we differ in what we're about,
One will do all the work when the other is out.
I am least apt to cry, as they always remark,
When trimmed with good lashes, or kept in the dark.
Should I fret and be heated, they put me to bed,
And leave me to cool upon water and bread.
But if hardened I grow, they make use of the knife,
Lest an obstinate humor endanger my life.
Or you may, though the treatment appears to be rough,
Run a spit through my side and with safety enough.
Like the boys who are fond of the fruit and their play,
I am seen with my ball and apple all day.
My belt is a rainbow, I reel and I dance:
I am said to retire, though I never advance.
I am read by physicians as one of their books,
And am used by the ladies to fasten their hooks.
My language is plain, though it cannot be heard,
And I speak without ever pronouncing a word.
Some call me a diamond, some say I am jet,
Others talk of my water, or how I am set.
I'm a borough in England, in Scotland a stream,
And an isle of the sea in the Irishman's dream.
The earth without me would no loveliness wear,
And sun, moon, and stars, at my wish disappear;
Yet so frail is my tenure, so brittle my joy,
That a speck gives me pain, and a drop can destroy.

—*Lancet*, London.

A Novel and Make-shift Catheter.—Dr. SANFORD A. KELLY, of Honesdale, Pa., writes the Medical News (Oct. 12th), as follows:

On May 27th I was called to attend a boy near Equimunk, Pa., twenty-two miles from here, and found him suffering from acute peritonitis. When I called three days later he was suffering severely from complete retention of urine. I did not have a catheter with me, and as I would have had to send twenty-two miles to my home or eighteen miles to Hancock, New York, before one could be procured, making forty-four miles one way or thirty-six the other, before the boy could be relieved, and as he was suffering such severe pain, I thought I would try an original plan of my own.

I went out into a field and cut several long stems of what is known as buttercup, yellow daisy, or crowfoot, and botanically as *Ranunculus*. I rubbed the stem down of one of these very carefully, so as not to break any of its longitudinal fibres, oiled it, and drew the patient's water as well as if I had one of the best of catheters. The boy was well formed and large for his age, weighing one hundred and forty pounds.

Over-Eating.—Dr. ALEXANDER LAMBERT, House Surgeon at Bellevue Hospital, New York, who has given some attention to this subject says:

I think the trouble with people in this country is that they over-eat. They don't eat so often as the Frenchman or the Englishman; but, when they do eat, they usually partake of a large variety of food, and eat it as hurriedly as they possibly can, in order that they may be kept from their business as little a while as possible. In this way they over-eat. If they haven't time to sit down and eat an elaborate dinner slowly and carefully, then the best thing they can do is to eat a small plain meal, which they could easily do in the time that they devote to their elaborate dinner, and from which they would derive a great deal more benefit.—*Dietetic Gazette*, Oct., 1889.

A New Medical Journal.—In January, 1890, Dr. I. N. LOVE, of St. Louis, Mo., will issue the first number of a new periodical, to be known as the "Medical Mirror." Dr. LOVE states frankly in his prospectus, that "the Mirror is not established to 'fill a long-felt want,' but because its editor has a fondness for journalism—a love for the profession, and a desire to be in close communion with it, and a willingness to indulge the luxury of this medium."

Dr. LOVE's close affiliations with medical associations, his penchant for journalism, and his many friends in all parts of the country, must soon win for the Medical Mirror a prominent place among medical journals, and we predict for it a warm welcome from the medical profession.

Johns Hopkins Hospital Bulletin.—The Trustees of the Johns Hopkins Hospital have

authorized the issue of a monthly publication to be known as the Hospital Bulletin, which will contain announcements of courses of lectures, programmes of clinical and pathological study, details of hospital and dispensary practice, abstracts of papers read and other proceedings of the Medical Society of the Hospital, reports of lectures, and all other matters of general interest in connection with the work of the Hospital. The subscription price will be $1.00 per year, and nine numbers will be issued annually. The first number appears this month.

Lawson Tait on Nephrorrhaphy.—At the recent meeting of the British Medical Association, this distinguished surgeon remarked he regretted having ever performed this operation, and in no instance was the person operated upon benefited, and one had since died under circumstances which might be fairly attributed to the nephrorrhaphy.

New Hospital.—The laying of the cornerstone of a new hospital, on Lombard Street, Philadelphia, having connection with the Polyclinic, was accomplished on Saturday, November 2, with appropriate ceremonies.

Therapeutic Brevities.

Quebracho and Its Alkaloid Aspidospermine in Dyspnœa.—Dr. Edwin M. Hale, of Chicago, in the N. A. Practitioner says: This medicine well deserves the name, "Digitalis of the Lungs." It seems to possess a power, singular and specific, on abnormal respiration when amounting to dyspnœa from almost any cause.

I have used it for more than ten years, and have found that it almost uniformly gives relief in dyspnœa. It has been observed regarding its action, that the "frequency of respirations is diminished by this drug, the more decidedly, the greater their excess has been over the normal condition." To illustrate its action, I will refer to cases published in The Therapeutic Gazette, during the last few years. Some of the most notable were reported by Dr. Walter P. Ellis in volume 12, pages 14, 15 and 16.

In the same volume Dr. Taylor, of Wakefield, R. I., reports a notable case, a girl of 15; periodic asthma; worse when working in a worsted mill. After taking thirty minims tinct. quebracho three times a day, she was able to work in the mill with comfort, but if she omitted, the dyspnœa returned. He says he has saved the lives of several old people with pneumonia by its tonic action on the failing respiration.

Dr. Baird, (Ther. Gazette), reports a case of a lady 18 years of age. The dyspnœa "almost amounted to asphyxia"; a 20 gtt. dose of the fl. ext. every two hours, would relieve for 24 hours.

Dr. Burkhart (British Med. Jour.) speaks in high terms of it. He tried in cases in which dyspnœa was associated with *emphysema of the lungs, atheroma of the arteries, and degeneration of the cardiac muscle*, and in every case immediate relief was afforded. I have italicized the above for the reason that I have found this medicine very useful in many cases presenting the same conditions. The patients were generally large heavy men, who had been high livers. One had an attack of apoplexy, but had recovered so that he could walk, had it not been for the great dyspnœa. Two grs. of the ext. every three hours gave him freedom from the loss of breath.

Quebracho seems to resemble coca and arsenic in its power of relieving difficult respiration from walking, ascending heights, etc., in perfectly healthy persons.

Dr. Penzoldt, who was the discoverer of this power of the drug on dyspnœa, experimented on himself as to its effects in diminishing shortness of breathing in climbing hills. On three following days he ascended the same height, in the same period of time. On the first day, without quebracho, his respirations rose 16 to 40, his pulse from 64 to 94. On the second day, half an hour before starting, he took 15 grammes of Penzoldt's extract and reached his destination with respirations at 30, and pulse 80; feeling also in every way easier. He was able to smoke during the ascent, which he was not able to do without the quebracho. On the third day he took none of the drug, and his symptoms were like those of the first day. He says he gave it with good results to two (2) persons, without evident organic disease, who could not walk fast without losing their breath. He sums up his experience as follows: "The dyspnœa of emphysema seems, from all accounts, to be most relieved by this drug; in that of phthisis the effect is uncertain, as well as in œdematous conditions of the lungs from renal disease; but some cases of cardiac dyspnœa, and even spasmodic asthma, have been benefited by it."

Not long ago I was called to see a boy of ten who was annually the victim of hay fever, which usually runs into spasmodic asthma. At the time I was called he had not had any sleep for several nights; had been obliged to sit bolt upright, all the time, and his breathing was so labored that he was a most distressing object. I gave ipecac and hyoscyamus, but his next night was as bad as ever. I then determined to try aspidospermine, the alkaloid of quebracho, which I procured of Parke, Davis & Co. Thirty grains were triturated with 500 grains of milk sugar. Of this I prescribed three grains every two hours. (The maximum quantity which can be given in one day, according to Merck, is 1-10 grain). The next night the patient could lie down—and got several hours good sleep. The medicine was continued several days with continuing improvement, when his father took him away to Ashland, Wis., the paradise of sufferers from hay fever. I have since used it in a similar case in an adult with good results.

Dr. Berthold relates that in a case of spasmodic asthma the respirations fell from 64 to 30, after three doses, with general improvement in the symptoms. In another case, when the asthma depended on emphysema, the usual attack, lasting three weeks, was arrested in five days.

In a case of mitral incompetence and stenosis, quebracho relieved the severe nocturnal dyspnœa most decidedly. In a case of fatty

degeneration of the heart, it gave great relief, but had no influence on the œdema, which digitalis removed.

One of the most interesting cases in which I have used quebracho was that of a man aged 65, weighing 250 pounds. He had fatty degeneration of the heart, emphysema of the lungs, and angina pectoris. He had not been able to leave his chair for several weeks; the dyspnœa was so great that he could not move even a few steps without great discomfort: he had agonizing angina several times a day, and often in the night; and heart failure seemed imminent any hour. Two grains of quebracho given every three hours had a very happy effect, enabling him to walk about the house, but as the attacks of angina at night were just as bad, four drops of a 1-100 solution of glonoin (nitro-glycerin) was given at bedtime, which prevented their return.

I have reason to believe that the alkaloid has a better action than the fluid or solid extract. The dose required is so small that when triturated with sugar of milk, even children readily take it. Even in as small doses as the 1-100 and 1-500 of a grain it acts promptly in the asthma of Millar, and palliates the distressing breathing of spasmodic croup.

Hydrochloric Acid in Indigestion.—Some very recent investigations of Boas, whose contributions, in connection with Ewald, to the physiology of digestion, and to the clinical study of its derangements, are familiar to the profession, afford valuable hints which may be utilized in the latter.

Boas confirms the finding of Munck, Fr. Mueller, Kesch, and others, that the intestinal fluids, contrary to formerly accepted ideas, possess no emulsifying property, and that such a function is rendered improbable by the almost constant reaction during intestinal digestion. There is, it is true, a considerable splitting up of neutral fats under the influence of the intestinal fluids. In normal digestion there is a preparatory duodenal digestion, a continuation of stomach digestion, which ceases only when acid chyme masses cease to flow; then the essential intestinal ferments and the bile begin to act. In those pathological cases in which an excess of acid is secreted, the stomach digestion is prolonged into the intestinal canal; the digestion of carbo-hydrates and fats must, therefore, suffer materially, while the albumens are easily disposed of. On the other hand, insufficient secretion of acid, and consequent too early and persistent alkalinization, may give rise to bile decomposition and to the formation of aromatic substances (skatol, iudol), with a tendency to flatulence, meteorism, diarrhœa, and their consequences. In cases of defective acid secretion, the therapeutic importance of hydrochloric acid does not rest so much upon its digestive action, which in the small doses usually administered must be rather doubtful, but to its anti-zymotic influence. Hydrochloric acid acts as a disinfectant upon the gastro-intestinal canal. If a decided digestive influence is desired in these cases, pancreatic preparations, which in the absence of acid may act without hinderance, are indicated. These views of the true action of hydrochloric acid explain its value in checking the troublesome eructations and flatulence in nervous dyspepsia, in which irrigation of the stomach, several hours after a meal, demonstrates a perfect stomach digestion. The successful application of hydrochloric acid in these distressing cases would be inexplicable upon any other theory than that advanced by Boas, that it acts as a disinfectant of the gastro-intestinal canal.—*Times and Register*, Aug. 31, 1889.

Incontinence of Urine in Children.—Dr. Descroizilles, in Rev. Gen. de Clinique, April 18, 1889, says that although the disorder is frequently of nervous origin, it also often accompanies constitutional weakness, and the strict application of hygienic and dietetic principles will frequently cause complete cure. There are many cases where further treatment becomes necessary. He has tried various remedies, and states that he has found the following formulæ to be most efficacious:

I.

℞ Extract belladonna, 6 grains.
Powdered gum arabic,
Powdered marshmallow, āā q. s.

M.—Make into forty pills. One to fifteen to be taken daily according to the severity of the case.

II.

℞ Syrup belladonna, ℥ ij.
Syrup tolu,
Syrup marshmallow, āā ℥ i.

M.—A half teaspoonful two to eight times a day.

III.

℞ Atropiue, 1 6 grain.
White sugar, ℈ iij.

M.—Make into forty powders. Two to four to be taken daily.

IV.

℞ Bromide of potassium, ℥ jss.
Linden flower water, ℥ ij.
Syrup of sugar,
Syrup bitter orange peel, āa ℥ j.

M.—A half teaspoonful one to four times a day.

V.

℞ Sulphate of strychnine, 2 grains.
Syrup of sugar, ℥ vj.
Water, ℥ ij.

M.—A half teaspoonful one to twenty times a day.—*Med. News.*

Strychnine in Dipsomania.—Recent contributions to the literature of the subject would confirm the views advanced by Popoff, Manassen, and others, that we have in this alkaloid a valuable remedy against a disease which baffles our best directed efforts. The hygienic and moral management still occupy the most prominent part in its therapeusis; as in all other maladies, the removal of the causes is here of the first importance. Physiological experiments, which are the only rational basis for correct therapeusis, have in this instance con-

firmed the empirical results. Dr. Jaroshensky has ascertained, from accurate experiments on dogs, that strychnine undoubtedly neutralizes the toxic and narcotic effects of alcohol; that it renders it possible, therefore, to administer large quantities of alcohol for a long period without producing the usual organic changes. He argues from these facts that a cautious administration of strychnine is of advantage in all forms of alcoholism, both as a curative and prophylactic agent. It may be administered internally or by hypodermatic injection. The latter is preferred by Allbright, of Brighton (The Lancet, May 21, 1889), in doses of five drops, once during 24 hours, of a solution of 1 grain to 200 drops of water. He claims to have treated nine cases of long duration and severe type, two of which had delirium tremens, with the result of inducing a positive disgust, which began at once and continued until the patient was restored, in ten or twenty days, with improved general condition.

So simple a treatment, based, as it is, upon physiological experiments, and confirmed by the experience already reported by others, surely commends itself to our acceptance, in these unmanageable cases.—*Times and Register.*

Cascara Cordial in the Constipation of Childhood.—The common variety of constipation of infants arising from an imperfect digestion of the casein of milk, may be rapidly cured by 10 to 20 drops of cascara sagrada cordial once or twice daily. The stools in these cases are hard, light in color, and apt to contain large curds of undigested casein.

If the movements are of normal consistency and color, but irregular and preceded by colic or flatulency, cascara cordial will give most satisfactory results. It should, however, be administered in small and repeated doses, and continued for some time after the case is apparently cured. Six drops four times a day will be sufficient for a child, three months old. As a laxtive, it is mild and efficient, and unaccompanied by griping or subsequent constipation. It should become a domestic remedy and replace the numerous preparations of rhubarb.

In scrofulous children with large abdomens, irregular bowels, and clay-color stools, voracious appetites, and coated tongues, the cordial of cascara sagrada appears to have an action beyond a mere tonic laxative, for under the continued use, the fæces assume their natural color, or become dark and green, the tongue loses its furring,and the whole system improves in tone. To obtain this alterative action, the dose must be sufficiently small to avoid catharsis.—*Ther. Analyst.*

Euphorbia Pilulifera in Asthma.—Dr. M. Graham Tull, of Philadelphia, in the Medical and Surgical Reporter, relates his experiences in the treatment of asthma with the above drug. His attention was called to it by a patient who had been greatly benefited by the treatment of an irregular practitioner, who advertises an "asthmatic institute," and who from all accounts, has been able to give patients great relief. Dr. Tull's patient exhibited to him the remedies which he had been taking. They consisted of a box of laxative pills, some quinine capsules, a stomachic, a thapsia plaster, and the "asthma cure." There was also a bottle of amyl nitrite in glycerin. An examination of the "asthma cure" satisfied Dr. Tull that it was euphorbia pilulifera. This patient, as well as several others treated by the same man, who came under his observation, was undoubtedly greatly improved by the treatment, and, as the other remedies employed are in common use in this affection, Dr. Tull was inclined to ascribe the benefit derived to the euphorbia pilulifera. He accordingly prescribed the fluid extract in doses of thirty drops three times a day, or every four hours, as required. His patients, so treated, have all done well, and he recommends that a trial be made of this drug by other members of the profession.—*Pittsburgh Med. Review.*

Chronic Cystitis in the Female, is often dependent upon anal or rectal irritation. If there is much tenesmus, relief will be given by dilating the urethra. Corrosive sublimate washes 1—3000,will often give speedy relief. In a few cases Faradism is of much service. Internally, the fluid extract of pichi has given excellent results. Thirty to sixty drops may be given four or five times a day. If the urine is ammoniacal, we may prescribe:

℞ Ex. pichi fl. P. D. & Co., ℥ i.
Ex. stigmatæ maid. fl. ℥ i.

M. Sig. One teaspoonful before meals in water.

The diet must be plain and unstimulating. Coffee, acids and condiments are to be especially avoided. Carriage riding and long walks are generally injurious. When other organs are diseased, special treatment is required. Irregularity of the bowels will call for a mild laxative. Among the best is the compound liquorice powder, (Gr. Ph.) which acts most acceptably when given in doses of one drachm before meals in one half cupful of hot water.—*Therapeutic Analyst*, Sept. '89.

Rhus Aromaticus in Incontinence of Urine.—(Union Medicale—Archives Medicales Belges). Dr. Burdenich, of Gand, has tried *Rhus aromaticus* in 33 cases. He obtained excellent results in 11, satisfactory in 10, and results of little import in 12. The good effects were not felt until the fifth or sixth day, and sometimes not even until the end of the third or fourth week. He considers *Rhus aromaticus* to be a powerful tonic analagous to nux vomica. Given in doses of about 38 grains a day, it rendered urination easy and continuous in the case of a man 75 years old, who had partial paralysis of the bladder without contraction of the urethra or hypertrophy of the prostate. Dr. Nuna, who thinks that the drug excites muscular action in the bladder, the uterus, and the lower part of the intestinal canal, gives 10 drops of the tincture to children from two to six years old, and 15 drops twice a day to older children. He thinks that the tonic effects do not persist. Dr. Hamon has succeeded in preventing children from urinating in bed by giving them a dose of from 20 to 60 drops of the tincture at bedtime.—*Georgia Medical Journal*, Oct., 1889.

Atropine in Enuresis.—Dr. Wm Perry Watson says (Archives Pediatrics, October, 1889): "In December, 1888, Dr. Simon Baruch, of New York, read a paper before the Pediatric Section of the New York Academy of Medicine, in which he made such positive statements about the value of atropine in enuresis that I at once resolved to try its efficacy upon similar cases."

He employed in thirty cases, all of nocturnal enuresis, some also being diurnal as well as nocturnal, in children, the following, of which one drop was given for each year of age, at four and seven P. M.:

℞ Atropiæ sulph., gr. j.
Aq. distillatæ, ℥ j.

The result was very satisfactory in all cases save one, and even that was improved. In some few instances, however, it was found necessary to double the dose—*i. e.*, give two drops for each year of age.

Digestive Tablets.—

℞ Salicylate of bismuth,
Magnesia,
Bicarbonate of soda, } ää ʒ ijss.

Make into thirty powders or tablets.

℞ Salicylate of bismuth,
Naphthol,
Magnesia, } ää ʒ ijss.

Make into thirty powders or tablets.

Dose: One tablet at breakfast and one at dinner. They are especially valuable in dilatation of the stomach caused by fermentation. —*Medical News.*

Rhamnus Catharticus as a Remedy for Toothache (Nouv. Remed.).—Gretschinsky has found a decoction of the bark of *Rhamnus catharticus* gives complete cessation of the pain when introduced into a carious cavity on a bit of cotton. He directs 10 parts of the bark to be boiled in a quantity of water which, after standing, will leave 20 parts of liquid, to which 1 part of alcohol is to be added.—*Ther. Analyst.*

Medical Progress.

Etiology of Rheumatism.—Inflammatory rheumatism — polyarthritis rhenmatica — is known to us as a disease well characterized by fever, by inflammatory affections of the joints and the heart, and by various complications, and is now supposed to have a distinct etiology and pathogenesis. To the labors of Immermann, Edlefsen, Friedlander, and their pupils, we are mainly indebted with regard to a decided modification of our views on the origin of the disease, and the following data may now be considered as nearly proven.

1. Inflammatory rheumatism is not produced by taking cold, *i. e.*, refrigeration of the heated surface of the body.

2. It belongs to the class of miasmatic infectious diseases, assuming an epidemic-like character at certain times, in so far as we are apt to see a larger number of cases where there is decreasing rain and moisture, while with an increase of the same the number of cases is diminished.

3. Rheumatism is also a house disease, the underground of houses in certain locations being infiltrated with the virus, which will be set free after prolonged dryness and by the air currents carried into the apartments. One or the other of the three main symptoms of rheumatism may be absent, and yet the affection in question has the same etiology, as for instance, acute muscular rheumatism, acute endocarditis, acute sero-fibrinous pericarditis, and a good many cases of chorea, though they may not just follow an attack of rheumatic polyarthritis. Furthermore, Immermann has shown us a masked form of rheumatism, presentiug itself in the shape of neuralgia of the trigeminal, sciatic spinal accessory, or other nerves. In March last I had a gentleman under my care who, having repeatedly suffered from gout and rheumatism, had at that time an exquisitely painful affection concerniug the left spinal accessory and branches of the fifth pair, associated with slight febrile motions. I failed to relieve him until I gave him the alkaline and salicylate remedies in large doses, when he rapidly improved and got well.

Edlefsen goes further than Immermann, and says that all neuralgias, with the exception of those caused by diseases of the central nervous system, syphilis, meningitis, or intermittents—have an etiology in common with articular rheumatism. Urticaria is considered of specific rhematic origin by Friedlander and some other authors, but I do not remember more than a very few cases of this affection which showed themselves amenable to anti-rheumatic remedies in my hands; while the majority appeared to me of neurotic origin, requiring constitutional treatment, and proving more or less refractory at that, particularly as far as the subacute form is concerned.

With regard to scarlatinal rheumatism the opinions are as yet divided—Immermann and others believing the scarlatinal poison to be also the cause of the joint affections, Edlefsen and his followers considering scarlatinal rheumatism to be articnlar rheumatism, so that a mixed infection would be present in such a case.

Among the many cases of scarlatina that have come under my observation there have been so few of them associated with articular rheumatism that, by this somewhat negative experience alone, I am inclined to believe in the identity of scarlatinal and artienlar rheumatism. And further than that, rheumatic diseases had occurred in some of the houses where I saw such complications, and the usual anti-rheumatic treatment was of good service in relieving them.

It would appear from the above views, that the field of rheumatism has been rather enlarged; but we shall not find it so if we come to separate from it a number of diseases which do not belong to it any longer. First of all, the many painful affections of the locomotor apparatus, some neuralgias and paralyses of motory nerves—particularly of the facial—which may be, and often are, produced by a rapid cooling off of the surface of the part in question, and eminently so when the surface has been hot and perspiring. Erb and Immermann propose to use the word *refrigerate* in designating all such cases, which have thus far been erroneously called rheumatism. Refrigeration is the most important, if not the sole factor in their

etiology, and when we speak of refrigeratory myositis, or myalgia, or facial paralysis, we know exactly what we mean by it.

And we have further to expunge from the chart of rheumatism the painful affections of the muscles after severe exertions (Robin's pseudo rheumatism), the rheumatoid complications of diarrhœa, chronic bronchitis—bronchectasie hæmophilie—all of which are due to poisonous influences different from that of rheumatism. Also rheumotoid purpura, or s. c. peliosis rheumatica, as shown already by Senator. I have seen a case of severe and widespread purpura in a man 50 years of age, associated with inflammatory hypertrophy of the liver that ended in cirrhosis, of which he died; another with chlor-anæmia, in a hard-working girl 22 years of age; another with mercurialism, in a syphilitic man 36 years of age; a number of them of very moderate extent and severity in neurasthenic and anæmic persons: but I have not had a case in which anti rheumatic treatment has been of any service. The pains in the limbs and around the joints in such cases are due to œdema and the more or less cachectic general condition. but not to rheumatic inflammation.

Bacteriological research has not succeeded in advancing our knowledge as to the etiology of rheumatism, but more has been learned by observations of another kind, for the origination of which we are indebted to Edlefsen. In a paper read before the Fourth German Congress for Internal Medicine, in 1835, he argued pretty conclusively that the theory of the influence of cold (refrigeration) was untenable with regard to rheumatism, and showed that while there was a decided connection between the mean temperature of the months and the frequency of laryngitis and bronchitis, the existence of the same connection could not be maintained as to articular rheumatism; and he further proved that the number of cases of rheumatism become less as rain and moisture increase, and more with the decrease of the same, and that pretty frequently a series of cases would occur in one and the same dwelling, and the adjoining houses in particular streets. These observations would show that inflammatory rheumatism is a miasmatic infectious disease, that its virus is of an organic nature and often has its lodgment in the underground of dwellings. These statements were supported, at the time of the discussion of his paper, by Järgensen and Friedlander, later on by Hirsch, Mantle, Feltkamp, and others. My own records show that the greater number of my cases of polyarthritis rheumatica occurred in February and March, and again in the hot and dry summer months. It might be said that butchers, grocers, marketmen, and saloon-keepers, for instance, which form the majority of the cases I treated, are just the persons who are more exposed to cold than others, and that alone might account for their rheumatism on the basis of the old theory; but they are also the persons who carry on their business and frequently live in, dwellings which are habitually damp, and the underground of which furnishes, in a most luxurious way, the conditions required for the development of the rheumatic poison. In a similar way the frequency of rheumatism among sailors could be explained.

To be sure, frequent exposure to cold and its consequences might create a predisposition to rheumatism, just as we know of well observed cases where acute rheumatism broke out after a sprain or distortion of a single joint.

If we accept the modern views of the etiology of rheumatism, and put it into the group of the miasmatic infectious diseases, to which it apparently belongs, it will not be difficult to work out a general pathogenesis of the disease. There is a virus present in the circulation which in one case attacks principally the joints, the endocardium, and the pericardium; in another, the muscles; and in another the nerves, etc.—Dr. Leonard Weber in *Medical Record.*

Value of the Operative Treatment in Conjunctivitis Follicularis.—When follicular inflammations of the conjunctiva once become installed in pauper schools, homes, barracks, or similar places where large numbers of inmates, especially children, are gathered together, they resist stubbornly the best directed efforts at eradication. The sources of contagion are endless, and in spite of frequent inspection of the eyes, rigid sequestration of the subjects of the disorder, and the exercise of great cleanliness, new-comers are attacked, and the disease becomes endemic. Probably not the least common source of infection is the frequent relapses to which these forms of conjunctival inflammation are subject, during which muco-purulent secretion arises, highly contagious in character, and readily passes by means of contact—towels or utensils—from one case to the other. If, then, direct operative measures will yield results better than those attained by the standard local application, especially results that tend to do away with the endemic character of this disease in crowded eleemosynary institutions, these should naturally recommend themselves to the exclusion of other procedures.

Vossius (Therapeutische Monatsheft, June and July, 1889) contributes some very interesting points bearing upon the question. In one poor-house, during four or five years, granular (follicular) conjunctivitis, in spite of the use on the part of the attending physicians of nitrate of silver, sulphate of zinc, and sulphate of copper, was not materially modified, and practically each child who was admitted to the institution became the subject of this form of conjunctival inflammation. After a time the children in a neighboring orphanage were beginning to be affected, and the endemic assumed dangerous proportions. An examination revealed 47 per cent. of inmates afflicted with various types of the disorder, as follows: In eight children the upper and lower retrotarsal folds were thickly beset with follicles; in eleven children large groups of the same character were found, similar in appearance to Peyer's patches in the alimentary canal, in the fornix of the conjunctival cul-de-sac; and in seventeen children the first symptoms of follicular (granular) conjunctivitis, namely, lachrymation, photophobia, injection of the conjunctiva, a feeling of sand in the eye, glueing together of the edges of the lids, and, upon inversion of these, on the retrotarsal folds the characteristic granulations in the conjunctiva, were evident. Severe corneal complications were absent. The cause of the endemic in this place was, as is often the case, due to direct contamination through the use of common

utensils. In these cases, some with and some without ether, the follicles were removed by means of forceps and Cowper's scissors, the depth and extent of the incision depending upon the character of the disease. After the operation, beside precautionary means to avoid extensive reaction, the local measures were continued, especially lotions of boric acid. Three months later an investigation revealed an entire absence of recurrence, and no new cases of follicular conjunctivitis have broken out; certainly a very satisfactory result.

On another occasion, among 300 scholars, 120 or 40 per cent. were the subjects of follicular conjunctivitis, and stubbornly withstood the ordinary treatment. More than 100 children were operated upon without any serious complications except in a few instances, where a sharp blenorrhœa of the conjunctiva occurred, but with the ultimate result, at the end of the year, of eradicating the epidemic, and preventing the appearance of any new cases.

Another school furnished an interesting record of the march of this trouble. In 1886 there were only 27 cases of pronounced follicular conjunctivitis, and 53 examples of mild conjunctival catarrh; in April, 1887, there were 97 children with catarrh, and 93 with granular disease of the conjunctiva; and in May of the same year, 107 of the 1051 scholars, that is 10.18 per cent. were in need of vigorous procedures. Fifty-eight of the boys underwent operation, and by the end of the year the children were well. An interesting point in the etiology of this epidemic, as well as in other observations made by the author, which we also have had the opportunity of noting ourselves, is the origin of these follicular inflammations during summer among children who frequent free baths, especially such as are overcrowded, and in which no due precautions as to cleanliness are taken. The usual source of infection in these instances is the employment of the same towel by many individuals.

We have quoted these observations of Vossius at length, because they seem to us to emphasize most important points in the management and hygiene of homes and schools where poor children are gathered together. Absolute cleanliness, not merely as far as the outward skin is concerned, but in habits of life, and with the opportunity of using separate utensils, towels, bed-clothes, and the like, isolation at once and promptly of such children as are afflicted, redoubled care it the appearance of muco-purulent discharge is noted, are precautionary measures so evident that it is only necessary to mention them in order to see their importance. Finally, if Vossius, Schneller, Galezowski, and others are to be believed, and it seems quite rational they should be, when the disorder has become established, it is better not to temporize with lotions, but at once, in suitable cases, to perform excision of the affected areas. Probably a sufficient number of cases has not as yet been thus treated to definitely settle the status of the operation, although Vossius's experience includes one thousand examples; but it is certainly true that either this method or the most vigorous antiseptic applications and aseptic precautions, are measures that recommend themselves most forcibly.—*University Medical Magazine*, Sept., 1889.

Value of Subcutaneous Injections of Chloride of Sodium in Profound Anæmia (F. Menchmeyer, in Arch. f. Gyn.).—After reviewing the history of transfusion and intravenous injection of saline fluids, with their evolution into the now more generally used subcutaneous injection, M. narrates eight cases in which the latter was employed. A 6 per cent. sterilized solution was employed. In addition to these eight successful cases, the procedure was also resorted to in ten cases, in all of which death resulted. In the latter the anæmia did not result from hæmorrhage during or following labor, but was associated with great debility and collapse during laparatomy and operations of similar gravity; that is, the injections were practiced upon individuals in whom the heart was the site of pathological changes accompanying disease, as for instance, the brown atrophy often seen with uterine growths. In such cases, the chief factor, the possibility of the injected fluid being absorbed into the circulation, is wanting. The author believed that he waited to long in the few cases of hæmorrhage during or following labor in which the injections were not followed by success; he admits, however, that there are not yet sufficient data to state decidedly why in one case the procedure is followed by good results, and in the other fails; nor is it possible to prove conclusively that those cases treated successfully would not have done as well without the injections. It appears from these eight cases that the results were the best when the quantity injected amounted to from 500 gm. to 1,000 gm.; in most cases one injection sufficed; in two it was found necessary to repeat it. By this it is not intended to convey the impression that in each case of dangerous hæmorrhage one injection of a given quantity should be given; on the contrary, the injection should be repeated until a good result is apparent; in most of the author's cases favorable reaction occurred shortly after the injection; the reaction showed itself at the latest after three hours. Should no reaction occur by this time, the operation certainly should be repeated. The usual analeptics (camphor, ether, musk, etc.) should be resorted to before beginning the injection, as they aid in restoring impaired cardiac activity and facilitate the absorption of the saline fluid. The injections were generally made between the scapulæ or in the neighborhood of the axilla, but the infraclavicular region is probably the best place. No inflammatory reaction occurred at the site of the injections. The apparatus for infusion (transfusion) consists of a glass funnel of moderate size, a rubber tube one metre in length, and a long needle. The latter is sterilized in an alcohol flame, and the whole apparatus disinfected with a five per cent. carbolic solution. The first quantity of the saline solution which enters is allowed to run off, so as to flush the apparatus of the residue of carbolic solution; the site of the injection is also carefully disinfected; the entrance of air is prevented by keeping the funnel always full. It is advisable to further the distribution of the fluid by massage; should a large tumor form notwithstanding, a second and even a third place for injecting should be selected. The fluid should be of a temperature of about 37° C. The wound is covered by a pledget of

cotton soaked in iodoform-collodium.—*Amer. Jour. Obst.*, October.

CATALEPSY IN MOTHER AND CHILD.—A case was recently reported in the Nederlandsch Tijdschrift voor Geneeskunde, where a pregnant woman became cataleptic, her child suffering from the same affection. The patient was a robust woman, aged forty-four; she had borne eleven children. In youth she suffered from typhus, and after recovery became subject to fainting fits, but throughout her married life she remained strong and well. There was no history of any neurosis in the family. In the seventh month of her twelfth pregnancy she was seized with cataleptic fits, following the loss of a child. Dr. Schoot, of Leeuwarden, found her stiff and motionless. The forearm could be raised and bent with some force, and remained in the same position for about ten minutes when it slowly fell. The lower extremities could be treated in the same manner with the same effect. Consciousness was lost. The pulse was sixty-four, full and regular; the temperature normal; the respirations natural. The pupils, somewhat dilated, reacted to light. On inhaling chloroform the rigidity of the muscles disappeared, and the patient seemed to sleep calmly for four hours. On awaking from the fit the patient remembered nothing that had taken place while it lasted. The fœtal heart sounds, previously audible, were lost, and not heard till fourteen days before labor. No albumen could be found in the urine. The cataleptic fits occurred about three or four times daily; sometimes there was an interval of two days. Atropine gave the patient a week's repose. The fits continued to term, when she was safely delivered of an apparently healthy boy. Not for four days later did the fits recur. On the fifth day an attack occurred while she was suckling; two days later another fit took place, but no more came on, and three months after labor she was quite well Shortly after the first attack after labor, the child, who had been weaned because of that attack, was seized with dysphagia, and could hardly swallow cow's milk. In the evening it had a cataleptic fit. The symptoms were precisely the same as in the mother. The flexibilitas cerea of the limbs was marked. The muscles relaxed during a warm bath, but soon afterwards tonic cataleptic convulsions occurred, and the child died after two days' duration of the fits Dr. Schoot after due consideration of the differential diagnosis of the case from eclampsia and hystero epilepsy, came to the conclusion that the fits were cataleptic both in the mother and child. That they were identical in each case there could be no doubt, but the precise relation of the affection in the mother and child remained obscure.—*British Medical Journal.*

NEW OPERATIVE TREATMENT OF BUNION.—Dr. Geo. R. Fowler, of Brooklyn, describes, in the Medical Record, a new method of treating hallux valgus, together with a special shoe which he had successfully used in the after-treatment. His operation consists in the removal of the exostosis, together with the inner half of the head of the affected metacarpal bone, the incisions being made between the great and second toes.

"An incision is made from a point upon the dorsum of the foot, somewhat below the level of the head of the first metatarsal bone, and just outside of that portion of the tendon of the extensor brevis digitorum which goes to the great toe; this is continued to the bottom of the web between the first and great toes. A similar incision is made on the plantar surface of the foot, slightly to the outer side of the line of the tendon of the flexor longus pollicis. The intervening parts are divided through the whole thickness of the sole of the foot, so as to join these two incisions. The great toe is then strongly adducted, and the external lateral ligament divided, opening the joint. After freeing the soft parts from the neck of the first metatarsal bone with the handle of a scalpel, the phalanx is completely displaced. The great toe is abducted still further, until its inner border lies along the inner border of the foot, its point looking directly backward; the head and neck of the first metatarsal bone, together with the exostosis constituting the bunion, are thus freely exposed. The latter, together with the inner half of the articular surface of the former, are sawn off by an oblique cut. The toe is then replaced in its normal position, and drainage provided for by a tube in the bottom of the gap. The soft parts are sutured; dressings of sublimate gauze and paper wool, and a splint, are applied to retain the toe in a straight position."

When the parts are soundly healed, a stocking is worn which is provided with a separate compartment for the great toe, and a shoe with a partition between the great toe and the second. This effectually guards against relapse, and in three cases in which Dr. Fowler used this method of operating and after treatment, the result was excellent. The chief advantages of the interdigital incision are, ease of access to the joint, section through healthy tissues, and removal of the resultant cicatrix from pressure points.—*Pittsburgh Med. Review*, Oct.

DIABETES MELLITUS AFTER THE EXTIRPATION OF THE PANCREAS.—Drs. V. Mering and O. Minkowski report a large number of experiments from their laboratory at Strasburg, all showing that extirpation of the pancreas results in true diabetes mellitus with all its ordinary symptoms. A dog whose pancreas had been removed, secreted, after 48 hours' fasting, from 5 to 6 per cent of sugar in his urine. Another dog, weighing 15 lbs., secreted under an exclusive meat diet two pints of urine daily, with 6 to 8 per cent. of sugar. Introduction of grape sugar into the food resulted in an increase of this by six per cent., by far the greatest part of the grape sugar being excreted without having undergone any modification. The urine also contained appreciable quantities of "acetone." The percentage of sugar in the blood was also much increased, being in one case 0.20, in another 0.45. Glycogen at the same time disappeared altogether. In a dog, for instance, which was diabetic for four weeks, and which was killed while being fed on full flesh diet, neither liver nor muscle contained glycogen. Transfusion from a diabetic dog caused no secretion of sugar in a healthy dog. —*Lancet.*

The Medical Age.

Vol. VII. DETROIT, NOV. 25, 1889. No. 22

Original Articles.

INSTANCES OF FAILURE IN THE TREATMENT OF UTERINE FIBROIDS BY ELECTRICITY.*

BY DR. G. APOSTOLI, PARIS, FRANCE.

The treatment of uterine fibroids by electricity according to the method I founded in 1882, and which I have since greatly improved, receives every day the approbation of leading gynæcologists in both hemispheres. I am, then, encouraged by the unanimous testimony of all impartial observers who have taken the pains to make trial of the method by following strictly the rules which I have laid down. I desire, however, to take up a few important points which have not thus far received sufficient attention.

I must repeat, for the hundredth time, that I have not, thus far, made any pretension, by my method, to effect a radical, constant cure of fibromata. If radical cure is realized, which sometimes certainly happens, the result is exceptional; and the only aim and expectation of this system of treatment is to insure the constant relief of symptoms, and the parallel, though limited, regression of the fibromata.

The envious, and evil-disposed generally, demand of every new therapeutic agent with whose discovery they have had nothing to do, that it shall effect more than it claims. My method has not escaped this kind of animadversion; and the principal object of this paper is to meet some objections which have been thus raised against it, and show some of the causes of failure. These failures may be ranged under three heads:

I. Causes due to the operation.

II. Causes due to the disease.

III. Causes due to the treatment,

I. There are many defects on the part of the operator which are sufficient to prevent success, such as: lack of gynæcological experience; of skill and tact in operative manipulations; and complete ignorance of physical laws. Many physicians — strangers, foreigners—honor my clinics with their presence, some who are themselves experts, others who are mere novices, in gynæcology. The latter generally examine badly—lack the *tactus eruditus;* are utterly unacquainted with electrical physics; and yet are confident of their ability to carry out my treatment. Invariably they announce, on their first visit, they are intending to buy in Paris all the apparatus necessary, and practice my method on their return home. Of course, I am not responsible for the failures of these incompetents. If skilled gynæcologists may make mistakes in diagnosis that entail serious consequences, what can we expect of the untrained ?

The most serious mistake of all, consists in taking an ovarian cyst or tubal growth for a fibroma, and applying to it the electrical treatments of fibroma, which invariably results in disaster. I have had knowledge of four cases —two at Liverpool, one at Glasgow, one at Paris—involving an error of this kind, and culminating in the death of the patient. There was no fibroma, but a cyst of the ovary which had suppurated and caused death.

II. On the part of the medicament, great mistakes have also been made in regard to the mode of administration: first, with respect to the quantity or intensity of the current; the operator may be either too timid or too venturesome.

If the former, and he employs too feeble a current, little or no benefit is obtained, or the situation may be aggravated.

The other extreme (using too strong a current), is equally reprehensible, and there is no little danger from such applications, especially if made in a harsh and precipitous manner with a lack of observance of the rules I have laid down.*

Séances, moreover, may be too frequent, or of too long duration; and the repeated congestions thus produced may result in uterine or peri-uterine inflammations with all their disastrous consequences.

The absence of antiseptic precautions, such as should preceed and follow the electrical applications, may be attended with serious mischief, especially in the case of vaginal Galvano-puncture, with subsequent loss of substance from sloughing. The failure of the remedial agent, moreover, may be due to insufficiency and incomplete localization; notably in fungous or hæmorrhagic endometritis accompanying fibromata. Or the intra-uterine cauterization may be insufficient from need of

* Communicated by the Professor. Translated by Dr K. Hurd, Paris, France.

* See my book "On the Treatment of Chronic Metritis," published by Geo. S. Davis, Detroit, Mich.

a carbon-electrode such as I use, which moulds itself to the parts and more or less completely fills the uterine cavity.

Another cause of failure may be due to the fact that the practitioner has not employed with all the needed energy, Galvano-punctures, the *denutritive* action of which has many times been demonstrated to be much more efficacious than any other form of application.

Above all, the most frequent cause of want of success is *failure to continue the treatment long enough.* The practitioner suspends the treatment after a few *séances*, discouraged at not seeing marked results, whereas, had he persevered longer, his efforts would certainly have been crowned with success.

III. On the part of the patient, the causes of failure are no less important.

It is necessary, first, to consider the nature of the fibroma, its seat and its topographical situation, all of which are eminently variable, and cause the current to produce effects varying in efficacy.

In a general way, it may be said, all other things being equal, that the effect will be more marked the nearer the fibroma comes to the interstitial variety, and that the action will decrease in intensity in proportion as the fibroma becomes more subperitoneal.

The soft fibromata are much more susceptible of rapid regression than the hard. It may, at the same time, be said that in all these varieties, indifferently, the electrical treatment continued sufficiently long, will procure results that are positive anatomically, and always accompanied by relief of symptoms. On the other hand, however, I have seen the current fail in fibro cystic tumors, in tumors accompanied with ascites, and those whose malignant nature is more or less suspected.

Another source of failure is the unrecognized lesion of the uterine appendages which may be variable in its turn, and, in certain circumstances, may be a cause of permanent congestion and hæmorrhage, and in others may provoke on the part of the peritoneum a more or less severe consecutive inflammation.

This is the case with suppurating tumors of the tube, which escape in part the action of the constant current applied within the uterus, but are often times tributary to a Galvano-puncture designed to make an artificial opening and effect a drainage. It is in cases of this kind, of which we have now the explanation, that we sometimes witness those sudden deaths following a simple examination, the application of the speculum, and any trifling gynæcological manipulation. The pathogeny is made known when the autopsy discloses a suppurating cyst of the annexes that has emptied into the peritoneum, causing a frightful peritonitis.

It should be remembered that any purulent collection in the female pelvis contra-indicates intra-uterine Galvano-cauterization with current of high intensity. The first and most urgent indication is evacuation of the abscess; the Galvano-puncture per vaginam (in the cul-de-sac) will serve the double purpose of draining the sac by forming an artificial opening, and of aiding resolution by the trophic action of the current.

In doubtful cases, in those where the exploration is insufficient or incomplete, the thermometer is a very certain aid to diagnosis. If, after a first intra-uterine application, in a case which we believe simple, a febrile movement attended with pain declares itself and does not readily yield—if the temperature remains high (102° to 103° F.)—we should be on our guard, and for the present, at least, withhold all intra-uterine applications. A new exploration under chloroform is demanded, and then, by the side of the fibroma, in all likelihood, will be discovered an unrecognized tumor of the tube. Under such conditions we may have to do one of two things: either the tumor is close to the vagina, and consequently accessible to an evacuating Galvano-puncture which should be made immediately; or it is too high up and cannot be reached through the vagina, when laparotomy may be obligatory.

A final source of failure is neglect on the part of the patient to take a rest of one or more hours after every intra-uterine electrical treatment. The violation of this requirement may bring about serious consequences, such as peri-uterine phlegmon, hence the physician cannot too strictly insist on this requirement being carried out.

Herewith is presented a report of a case to which allusion has been made under the head of errors of diagnosis, and which was not one of *suppurating fibroma*, as the surgeon in charge declared it to be. [See note appended at the close of article.]

Suppurative Cyst of the Ovary Mistaken for a Fibroma—Intra-Uterine Galvano-Caustic Application—Death.—Madame X., entered the Salpêtriere in the Spring of 1886. In April, M. TERRILLON showed me this patient who had been confided to his care by Dr. FERREOL of Charité Hospital, with the diagnosis of *Pelvic hæmatocele.* She had been at the Charité several months, in bed, after suffering a series of most intense attacks of pain which were repeated at frequent intervals coincident with the appearance of an abdominal tumor. The diagnosis was made of hæmatocele, and in consideration of the failure of all the ordinary modes of treatment, laparotomy was proposed as a last resort.

Dr. TERRILLON, after a minute examination, confirmed the diagnosis already made, and attempted laparotomy, when a tumor was discovered of considerable size, extending to the

umbilicus, to all appearances single, hemispherical, having the aspect and consistence of a fibroma. We examined it carefully by palpation, and came to the conclusion that we had to do with a soft fibroma, unsuitable for operation. We vainly endeavored to extract it, then decided to leave it alone and close the abdominal incision; the laparotomy had been simply exploratory, and the patient made a quite rapid convalescence.

A month and a half afterwards, M. TERRILLON proposed to me to treat this soft fibroma electrically, to which I consented, and made another examination, noting the presence of a tumor of considerable size, yielding to pressure in certain points, indurated in others, reaching to the umbilicus. Examined by touch, the vagina was found filled by the same tumor, and the cervix uteri crowded forward behind the pubes and not easily accessible to the sound. I endeavored, nevertheless, to enter the sound (the instrument, belonging to the hospital, had not been disinfected), but could not succeed in passing to a depth greater than six centimetres. Although not satisfied with this attempt, I made a first *negative chemical intra-uterine Galvano-caustic application* of sixty (60) milliampères for five minutes, this was very well borne, without any subsequent reaction. Three days afterward the patient was doing well, when a second *negative Galvano-caustic application*, 100 milliampères, for five minutes, was made without any marked reaction. Two days afterwards, before the *séance*, a new attempt at hysterometry was made, under the same conditions as at first, using a hospital sound of whose thorough disinfection I was not certain. The uterine measurement proved to be 11 centimetres.

A third *negative chemical Galvano-caustic application*, 150 milliampères, 5 minutes. This was not as well borne as the preceding applications, and the patient took to her bed immediately afterwards. The next day, abdominal pains made their appearance, accompanied by slight chills, want of appetite and fever. These symptoms grew worse; I watched their progress, and the patient said to me several times: "I suffer just as I did when I had my attacks of pain at Charité Hospital." Four days after, she was dead from a spreading peritonitis.

The autopsy was made 24 hours after, in my presence. When the abdomen was opened, there came a gush of pus which confirmed the diagnosis which had been made of *suppurative peritonitis*. The uterine tumor looked exactly as it did the day of the laparotomy; but great was our surprise when, in trying to extract it, we found it divisible into three lobes, encased the one in the other, like almonds in a shell; and these were nothing but cysts of the two ovaries, one of which contained limpid liquid and no pus, the other contained blood, while the third contained an opaque, purulent liquid identical with that which flooded the peritoneal cavity.

These three cysts, of dimensions almost equal, had their membranes intact, and did not appear to have undergone any perforation

The uterus was removed, and carefully examined by M. JACQUMOT and myself. Externally it was not at all inflamed; the cavity measured 11 centimetres. We made a longitudinal section, which showed that the uterine tissue was not inflamed. The most minute examination revealed no uterine perforation, and the only real lesion that we could find was a bluish eschar affecting the mucous membrane in its entire circumference near the internal os. This was the only place where the Galvano-cautery seemed to have acted.

REMARKS.

1. Mistakes in diagnosis are possible, even by the best surgeons.

2. Cysts of the ovary contraindicate the employment of the intra-uterine Galvano-cautery.

N. B.—Such is the case for whose fatal result I have assumed the entire responsibility, as one can easily convince himself by reading the report which I presented to the Dublin Congress in 1887 (Bull. Gén. de Ther., Aug. 15, 1887). I have borne no little blame for this unfortunate result, which could not, it seems to me, have been well foreseen, and which certainly ought not to impair confidence in electrotherapy in its application to uterine fibroids.

EDITORIAL NOTE.—The impartial American critic would be disposed to lay equal blame (if blame there be) for the unfortunate *denouement* as above detailed, on the surgeon who, after the performance of a laparotomy, could still allow the nature of a morbid growth of the character above described to escape recognition. It would seem that no exploratory punctures were made to determine the quality of the tumor. Surely it seems to us that the employment of the aspirator, or even a hypodermic needle, would have enabled the surgeons to tell whether they had to do with a fibroma or a cyst.

It is hard to say, from the description given, whether the Galvano-cautery had anything to do with precipitating the death of this patient, or whether it was simply the natural course of the disease. Dr ARONSOHN intimates that the use of a uterine sound that was not aseptic may have had something to do with the fatal issue (?) by lighting up a septic inflammation.

As he remarks, the history of the case is no argument against electro-therapy in its application to uterine fibroids. That he has been fairly successful in the employment of his method, which is becoming more and more popular from its ease of execution and supposed safety, must be admitted.

NOTES ON MODERN THERAPEUTICS.

BY F. K. STEWART, M. D., PH. G.*

The following notes are made up partially from personal experience, partly from Prof BARTHOLOW'S lectures, and partly from points picked up here and there

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Prof. BARTHOLOW is a strong adherent of physiological therapeutics, and in teaching he uses the following classification:

A. Remedial Agents Employed to Promote Constructive Metamorphosis.—Special plans of diet; alimentation in disease; beverages; water; heat; digestive ferments—pepsin, pancreatin, etc.; mineral acids; oils and fats, etc., etc.

B. Agents Promoting Destructive Metamorphosis.—Alkalies; vegetable acids; iodine; mercury; gold and other metals; colchicum; sarsaparilla, guaiac, etc.

C. Modifying the Functions of the Nervous System.—Which do not, for the most part, affect the functions of nutrition, nor enter into the formation of tissues; and, after action, are excreted from the organism in the form in which they entered it: 1. Agents exciting functional activity of the spinal cord and sympathetic.—Electricity, nux vomica, ergot, digitalis, belladonna, stramonium, etc. Agents exciting functional activity of the cerebrum.—Camphor, valerian, cannabis Indica, etc. 2. Remedies diminishing or suspending the functions of the cerebrum after a preliminary stage of excitement.—Alcohol, ether, chloroform, chloral, opium, bromides. 3. Agents depressing motor functions of the spinal cord and sympathetic.—Conium, gelsemium, tobacco, hydrocyanic acid, etc.

D. To Cause Evacuations from the Body.—Emetics, cathartics, etc.

E. Anthelmintics.

F. Urino-Genital Remedies.

G. Topical Remedies.—Antiseptics, counter-irritants, epispastics, acupuncture, blood-letting, etc.

Topical Remedies—Antiseptics.—Antiseptics are remedies that have the power, when brought in contact therewith, of inhibiting or destroying the vitality of disease germs, and of arresting fermentation processes which they promote. The physiological action of all of the group is nearly identical.

The effect when taken internally, is to first stimulate, then depress the heart; and if the dose be sufficiently large, cardiac paralysis results; respiration also, at first increased, is soon depressed; the pupils are contracted, and sensibility and motility are finally both affected.

SALICIN.—$C_{13}H_{18}O_7$. A glucoside prepared from the bark of different species of *Salix*. Occurs in colorless, white, shining crystals; odorless; very little taste; neutral reaction; soluble in water and alcohol, insoluble in ether and chloroform. Prepared by removing gum, tannin, and extractive matter from a boiling concentrated decoction of the bark with lead oxide, separating the portion of lead dissolved in combination with the salicin with H_2SO_4 and BaS, filtering, evaporating, and purifying the deposited salicin by repeated solution and crystallization. Dose, gr. v–xxx.

Is a bitter tonic, antiferment, antiseptic, feebly antipyretic. Highly distructive to low organisms, devoid of toxic power on man; is excreted, after having been changed into salicylic, salicyluric, and salicylous acids in the bowel, as saliguirin and glucose. Promotes appetite and digestion; inferior to quinine in intermittents; stomachic tonic in atonic dyspepsia; used to prevent fermentation in small intestine, therefore of service in chronic diarrhœa and gastro-intestinal catarrh. Given in large doses in acute rheumatism, 10–30 gr. every 2 or 3 hours; frequently limits attack, but does not prevent heart complications.

OLEUM GAULTHERIÆ (oil of wintergreen).—A volatile oil. Consists of terpene $C_{10}H_{16}$, termed *gaultheriline*, and methyl salicylate $CH_3C_7H_5O_3$. A colorless, yellow, or reddish liquid, of peculiar strong aromatic odor, sweetish, warm, and aromatic taste, and a slight acid reaction. Readily soluble in alcohol. *Spiritus gaultheriæ:* oil 3, alcohol 7; dose, ♏ x–xx.

It is stimulant, slightly astringent, antiseptic, and antipyretic, and used as a substitute for salicin and salicylic acid. May be given in the form of an emulsion. Ten minims to a tablespoonful of emulsion of cod-liver oil form an elegant method of using in the treatment of rheumatic neuralgia.

ACIDUM CARBOLICUM.—C_6H_5HO; (phenol). Colorless, interlaced, needle-shaped crystals, sometimes acquiring a pinkish hue; deliquescent on exposure. Produces a benumbing, blanching, and caustic effect upon the skin; has a distinctive slightly aromatic odor resembling creasote; when diluted, a sweetish, with slightly burning, taste; neutral reaction. Soluble in 20 parts water; 100 parts of the crystals are liquified by the addition of about 5 parts of water; this liquid is rendered turbid by the further addition of water, until 2,000 parts have been added, when a stable and clear solution is found. Very soluble in alcohol, ether, chloroform, etc. It is a product of the distillation of coal-tar between the temperatures of 180° and 190° C.

Unguentum acidi carbolici—Acid, 1 p.; ointment, 9 p. *Glyceritum acidi carbolici*—Acid, 1 p.; glycerin, 4 p. *Aqua acidi carbolici*—♏ x of glycerite to Oi of water; dose, ʒ i–ʒ ss. Carbolic acid gauze—Acid, 1 p.; resin, 5 p.; paraffin, 7 p. Carbolic acid plaster—Acid 25 p.; shellac, 75 p.; coated with gutta percha dissolved in carbon disulphide. Carbolic acid solution for antiseptic surgery—Spray or wash, 5 p. c., in water; sponges, lotion. 2½ p. c., in water.

Carbolic acid is an antiseptic, antiferment, and a powerful toxic agent when taken in poisonous doses; also a local anæsthetic and superficial escharotic; it coagulates albumen, also blood when out of the body. It first stimu-

lates, then depresses the heart and respiration; paralyzes both when taken in toxic doses; affects brain and cord, impairs mobility and sensibility; is rapidly absorbed even when applied externally. Patients taking should be watched. The poisonous effects resemble septicæmia. It is partly oxydized in the blood, and partly eliminated by the lungs and kidneys, giving the urine a peculiar smoky hue which occurs before toxic symptoms develop, and is a useful index when employing therapeutically.

Antidotes.—Liquor calcis sacch., given freely; sodium sulphat—non-toxic sulpho-carbolate of sodium is formed; vegetable demulcents (no oil or glycerin) to protect mucous surfaces. The contracted pupils indicate atropine as the physiological antagonist.

Carbolic acid is employed in nausea and vomiting due to irritable condition of gastric nerves, especially when combined with bismuth. I have found excellent results from a combination consisting of:

℞ Carbolic acid, ♏j.
Bismuth subnit., gr. xxx.
Hydrocyanic acid, dil., ♏xxx.
Mucilage acacia, ʒ j.
Aqua, menth. pip., ad ʒ ss.
M. Sig.—Every 3 or 4 hours.*

This mixture, without the hydrocyanic acid, not infrequently arrests cholera morbus; or, in proper dose, cholera-infantum, and good results are claimed in cholera, especially when combined with iodine.† It is also a valuable remedy in the treatment of dyspepsia due to fermenting food. A one-per-cent. solution, inhaled as spray, is used with benefit for chronic nasal catarrh, hay asthma, chronic bronchitis, and whooping-cough, or a mixture of equal parts carbolic acid and tr. iodine may be warmed in a teaspoon and the vapor inhaled.

Parenchymatous injections are employed in the treatment of erysipelas, pleuro-pneumonia, lupus, chancroid, secondary syphilitic abscesses, ulcerations, etc., and in the treatment of intermittents. A two-per-cent. solution is most suitable. Prof. Bartholow speaks highly of the injection of a strong solution of carbolic acid in piles; also in the treatment of uterine catarrh.

Creasotum.—Creasote.—An almost colorless or yellowish, strongly refractive, oily liquid, turning to reddish-yellow or brown on exposure to light; penetrating smoky odor; burning caustic taste; neutral reaction. A product of the distillation of wood tar, consisting mainly of *guaiacol*, or *oxycresol*, *creasol*, *methylcreasol*, and *phloral*. When wood tar is distilled, a solution of several layers is formed. The lower oily layer is treated with K_2CO_3, to neutralize the acid present. Fractional distillation with H_2So_4 and KHO, to separate impurities, and final distillation, yields creasote. Nearly all the creasote in the market, however, is impure carbolic acid; the genuine does not coagulate albumen or collodion.

Creasote is very similar in action upon the heart and respiration to carbolic acid, and has given way to the latter as a remedy. Recent observations, however, seem to indicate that it has a special action in the treatment of phthisis—so much so that it deserves special study.

Aqua Creasoti, U. S.—Creasote water, 1 per cent. solution (4.4 ♏ in ʒ j). Dose, ʒ i–iv.

Acidum Salicylicum, — Salicylic acid, $HC_7H_5O_3$. Permanent, fine, white, light, prismatic, needle-shaped crystals, free from the odor of carbolic acid, but having, sometimes, a slight aromatic odor, sweetish and slightly acrid taste, and acid reaction; prepared by treating sodium phenol with carbon dioxide.

Sodii Salicylas—Salicylate of sodium. Soluble in 1½ per cent. water. Dose, gr. v–ʒ j.

Lithii Salicylas—Salicylate of lithium. Very soluble in alcohol and in water. Dose, gr. j–ʒ v.

In small doses, salicylic acid stimulates the heart and respiration; in large doses, depresses both. It lowers arterial tension, relaxes the vessels, produces free perspiration, and lowers the temperature, both on account of its action upon the circulation, etc., and owing to the increased cutaneous evaporation, causes vertigo, ringing in the ears, a sense of fullness in the head, nausea and vomiting, and *dilates* the pupils. Its action is central, there being no effect on the peripheral nerves either of sensation or motion. Is slowly excreted by urine, sweat, saliva, and bile; irritates the kidneys, and may produce albuminuria and hæmaturia; is converted into salicylate of sodium before reaching the tissues.

It is now used principally in the treatment of acute articular rheumatism. The writer has had a large experience in the use of this drug in rheumatic affections, and can recommend it when employed in the following manner: Salicylic acid, ʒ iij; bicarbonate of potassium, ʒ vi. Divide each into nine powders, the former in white, the alkali in blue papers. For use, mix the contents of one white and one blue paper in ½ tumblerful of water, and swallow when effervescence has ceased. Three such doses should be taken daily, before meals; but if after three days no benefit is had, it is useless to continue the remedy.

Salicylate of Phenol ("Salol")—A derlva-

* Dr. Stewart has evidently made a mistake in this prescription, since thirty minims of dilute hydrocyanic acid at a dose is excessive, ten minims being a maximum and permissable *only after long use*. The rule is one minim, increasing slowly to, perhaps, six minims.—Ed

† This combination is alike unchemical and unpharmaceutical, as carbolic acid is *decomposed* by the presence of iodine.—Ed.

tion of carbolic acid, first brought to the attention of the medical profession by Dr. SAHLI, composed of 40 per cent. carbolic acid, and 60 per cent. salicylic acid. Given internally, produces the effects of both remedies.

It reduces temperature to a certain limit; then, is said to be inoperative, even though several doses are taken. It stimulates respiration for a time, but does not notably affect circulation. Dr. SAHLI believes it is decomposed by the pancreatic juice, and the experiments of LEPINE seem to confirm this view. It is supposed that it reaches the duodenum unaltered, and thus, by the action of the pancreatic juices, breaks up into salicylic and phenic acids. It is eliminated by the urine as salicyluric and phenyl-sulphuric acids. Principally used in the treatment of rheumatism. It quiets the pain but only transiently. The effects of salicylate of soda are more durable, and the latter has the additional advantage of attacking the disease as well as pain. In the treatment of rheumatism in children, the great nervous sensibility renders the latter dangerous, and the former valuable. "In certain diseases of the central nervous system, notably in sclerosis, salol has appeared to appreciably diminish pain" (LOMBARD). It has been used as an antiseptic in surgery, and VENILHT recommends salolized cotton tampons for use in the cervix. Fungositis of the cervix, vaginitis, and external eye affections, are treated with it, and Prof. BARTHOLOW recommends it highly as an antiseptic in the treatment of intestinal indigestion. Dose, 3 j to 3 ijss for an adult, in cachets, emulsion, or mixed with sugar and flavored with vanilla. For external use it may be mixed with starch, or rice flour. Phenol-salicylate collodion is recommended for chapped nipples, and is prepared by mixing together one drachm each of phenol-salicylate and ether, with an ounce of elastic collodion.

PARACETPHENITIDIN ("phenacetin"). — A tasteless white glassy crystalline powder, slightly soluble in water, more so in glycerin and alcohol. In small doses, stimulates respiration and heat; in larger doses is a depressant; still larger induce somnolence, giddiness and vomiting; and again larger, cyanosis, profuse perspiration (sometimes), lassitude, ringing in ears.

As an antipyretic it is best given in doses of from 8 to 12 grains, every hour or two. The reduction of temperature after such dose is from 3.6° to 4.5° F.

Phenacetin is used in the treatment of migrain and severe headache; as a surgical dressing in acute articular rheumatism; and in whooping-cough. DUJARDIN BEAUMETZ says it is a rival of analgesin and acetanilid; in a word, it is an antipyretic and a nervous sedative.

Phenacetin does not produce cyanosis, like acetanilid, and, in contradistinction to the latter, its presence in the urine may be detected; ferric perchloride will turn red, and cupric sulphate will turn green, if added to urine containing phenacetin.

OBSTETRIC CLINIC—DETROIT EMERGENCY HOSPITAL.

BY DAYTON PARKER, M. D.*

Use of the Obstetric Forceps.—The patient which I bring before you this morning, gentlemen, is a young woman in her first labor. She was attacked with labor pains last night, and was compelled to leave the place where she had been employed, and find shelter in the street. The ambulance brought her to the hospital at a late hour. I examined her, and found the membranes had ruptured, and the os uteri dilated about the size of a quarter of a dollar. She was having labor pains at intervals of five to the minute, and everything looked as if the labor would speedily terminate with the delivery of the child. Through the open os I could feel the bones of the fœtal head, and by pressing upon them firmly with my finger they crackled and grated as they moved upon each other—a sure means of distinguishing between a breech and vertex presentation. While her labor pains were vigorous and frequent, there was no decided advance, and I was soon satisfied that I had to deal with a case of impaction of the head in the pelvic canal. I encouraged her to make more strenuous effort, gave her quinine, and with my finger dilated the os until it was pushed well over the vertex, but these efforts failed to advance the child, and I am now convinced that the labor cannot be completed with safety to the mother and child if I longer delay.

When I examine now, I find the head fixed and immovable in the pelvis, with the face toward the left sacro-iliac junction of the mother.

You will observe that the patient is anæsthetized with chloroform, and that I flex her thighs on her abdomen and bring the buttocks forward to the edge of the operating table. This should always be done in any obstetric operation. Beneath the sheet, guided by the sense of touch, I insert into the vagina, and press up toward the head of the child, the forcep whose curves correspond with the cephalic and pelvic curves on the left side of the mother. There used to be much confusion in the minds of medical students as to which blade of the forceps should be introduced first. This may be explained by always locking the forceps when taking them from the bag; then lay them down on the convex curve, and introduce the lower blade first. This simple procedure does

* Professor of Obstetrics and Diseases of Children in the Michigan College of Medicine and Surgery.

away with any confusion which might result from the use of the terms "male" and "female" blades.

Having introduced the first blade, the handle projects from the vulva and is allowed to fall across the perineum, where it is out of the way until wanted to lock with the second blade. The second blade is passed in on the right side of the vagina, and is carried around the head of the child, as you see. Now, I know both blades are in place because I can easily bring them to lock. I now make slight traction on the handles of the forceps at the moment when the uterus contracts to expel its contents, and can feel that the head is advancing with my help. I keep in mind the axis of the pelvis, and make traction in a line parallel with the axis. Now the head has reached the perineum, and that organ is being rapidly distended, and will soon break if I do not raise the handles so as to bring the traction directly across the face of the pubis. Thus, you see, the head is delivered without tearing the perineum.

If instruments are used properly, there is no more danger to the perineum in a delivery with forceps than without. The head alone will break the perineum if it is not held up against the pubis, oftentimes.

The main thing you should have in mind when using the forceps, is the direction of the axis of the pelvic canal. This is invariably a part of a circle of varying diameter. I have seen the forceps used improperly many times—the operator pulling with all his force against his patient's perineum, when he should be pulling directly upward and lifting his patient from the bed. I want to repeat, that in many cases of impaction of the fœtal head, there is no danger of lacerating the perineum of the patient if the force applied through the forceps is used in a line with the axis of the pelvic canal. Now, having delivered the head with forceps, it is grasped by my hands and held up while the contraction of the uterus expels the body of the child.

Sometimes the shoulders of the child tear the perineum. To guard against that I keep the body of the child up against the pubis when it is being extruded from the pelvic canal.

There is the baby, the cord twisted about its neck, as often happens, and it must be removed. The child does not breathe promptly as it should. The impaction in the pelvis has interfered with its circulation. It looks blue and needs oxygen from the air. I cut the cord, as you see, letting it bleed a few drops while I perform artificial respiration until breathing and circulation are established. Then I tie the cord; and now you hear the baby cry lustily.

The placenta we deliver by the Credé method. Dr. MULHERON who has kindly assisted me with the anæsthetic, will compress the uterus through the abdomen while I making slight traction on the cord, deliver the placenta. The babe will soon be put on the mother's breast. The mother will be put to bed and made comfortable but not enjoined to lie so quiet that the lochia will rot in the vagina and give her puerperal fever. She will be expected to move about naturally in bed, to void her urine naturally, and to make a prompt recovery.

Correspondence.

DERMATOLOGICAL CLINIC, UNIVERSITY OF PENNSYLVANIA.

Reported for the Medical Age.

CASE I.—*Chloasma.* A woman, æt. 23, was introduced, having a peculiar mahogany stain covering the face and hands, giving her the color of an Indian. The only history elicited relative to the disease, was that two years ago she had erysipelas that was treated with some unknown application, subsequent to which occurred this pigmentation. Upon first inspection Dr. STELWAGEN was inclined to view the case as a feigned or artificial stain, but upon further and closer examination he classed it as *Chloasma*, though it differed from the ordinary type of this disease in color, in its mottled appearance, and in its history. Its hue was akin to that produced by *chrysarobin*. No subjective symptoms were present.

About two weeks ago the patient first presented herself for treatment, and was put upon arsenic. At present the pigmentation is lighter and as she appeared to be doing well, the same treatment was continued.

CASE II.—*Impetigo Contagiosa.* A child, presenting a number of superficial and confluent patches of dried-up pustules on the left knee and the head. The crusting shows that there has been a discharge, either purulent or serous; judging from color, it might be inferred that it was probably of a mixed type, *i. e.*, sero-purulent. Lesions evidently started small, and became larger. In order to make a proper differential diagnosis from *simple impetigo* and from *pustular eczema*, it will be necessary to get at the beginning of the lesion. In *simple impetigo* the lesions are pea-sized, and distinctly pustular from the beginning, are rounded in shape, and have a rather extensive inflammatory areola—whilst in the case under examination they were, at the outset, vesicular, flat, and superficial. In *pustular eczema* the lesions are small, often ill-defined pustules, whilst those of this case are distinct and large.

Having excluded these two diseases, we have left only *impetigo contagiosa*, of which this is a

* Service of Henry W. Stelwagen, M. D.

fair example. In this malady the lesions begin as small papules, rapidly becoming vesicular, and growing peripherally until large-sized blebs are formed of a flat and somewhat umbilicated character. In places, several contiguous lesions may run together, and a diffused patch be formed; but these need not mislead, as characteristic and distinct lesions are always discoverable. In from seven to eight days the blebs dry into thin, wafer-like, yellow crusts, then drop off, and in two to three weeks the disease has usually run its course. In some instances new lesions appear, and may continue for several months, kept up by auto-inoculation through scratching. Hence the diagnosis can be verified by inoculating the patient with the pus in various parts of the body not affected with the disease. This affection partakes somewhat of the nature of the lesions found in *chicken-pox*. Its cause is unknown, but it may be parasitic.

Treatment.—White precipitate, grains x to xx to the ounce of a base, to form an ointment. Rub in thoroughly two or three times daily, the crust, or covering, having been removed by warm water and soap.

CASE III.—*Eczema Fissum.* A woman, æt. 23, presenting a dry scaliness of the skin of the hand, with a tendency to crack, especially marked upon the fingers. This case is of a type of skin disease which is frequent and rebellious; is very common in winter, and occurs most frequently in persons exposed to heat, cold, or to such occupations as compel them to keep the hands almost continuously in water; particularly is this the case where there is a predisposition to eczema.

Treatment is principally local. Preparations of tar and of salicylic acid are useful.

℞ Ung. picis, ʒ i.
Ol. olivæ, ʒ i.
M.

Rub in thoroughly on the parts, five, ten, or fifteen minutes at a time, a small amount the size of a pea, after which dry parts carefully with soft rag or towel.

℞ Acid. salicyl., gr. x–lx.
Ung. zinc oxid., ʒ i.

Apply as an ointment; rub in thoroughly. If these fail, the following composition, applied at night, may prove beneficial; equal parts of lead plaster, soap, and petrolatum, to which is added salicylic acid to the proportion of 10 to 20 grains to each ounce. Four ounces may be ordered, which is to be spread on strips of muslin and applied upon the affected surfaces, over which a bandage may be placed. This dressing is to be removed every twelve hours, as circumstances may permit.

CASE IV.—*Eczema Rubrum.* This is a secondary type of the disease appearing on the leg. There still exist some discreet reddish spots on the outer margin of the extremity, forming a thickened, chronic, oozing patch, inflammatory in character, with a variable amount of crusting. Mild varicose veins exist, therefore, if such a case be neglected, as a rule, ulceration follows. This type of eczema is common in those persons who have passed the ages of 35 to 40. No scarring of the affected parts occurs when a cure is effected, although a slight pigmentation usually remains, due probably to the long congested condition of the parts.

Treatment.—As the disease is inflammatory, mild remedies, such as black-wash and oxide of zinc ointment, should be used at first. The former is dabbed on thoroughly, and permitted to dry, after which the ointment is used as a plaster, and the leg bandaged from toe to knee. Boracic acid solution, fifteen grains to the ounce, may be employed instead of the black-wash. Subsequently stimulating applications are to be advised. Bowels should be kept regular, and any functional disorder corrected. If desired, arsenic may be used, in doses of $\frac{1}{50}$ to $\frac{1}{30}$ of a grain, but for its tonic effect solely.

The disease is curable generally in from four to six months, though in more obstinate cases it may require a year or longer.

TRAUMATIC TETANUS.

Dr. J. B. LAING, of Otisville, Mich., writes:

October 8th, was called to Columbiaville to see a child under the charge of Dr. C. A. WISNER. It had been knocked down and injured by a freight car. Upon examination we found the right hand had been caught in such a manner that the flesh was split from the end of the forefinger to a point involving nearly the lower third of the forearm, the flesh being laid open, leaving fully half of the palmar surface, and the back of the hand to the second metacarpus, and the phalanges of the thumb, bare. There was dislocation of the index, middle, and ring fingers. The palmar arch was intact, and a slight oozing showed the circulation was still maintained in the fingers. Coal debris had been so pressed into the tissues that it was slow work cleansing the wound.

We disarticulated the thumb from its metacarpus, and carefully approximated the torn tissues by interrupted sutures; wrung out half-a-dozen layers of cheese-cloth from a solution of bichloride mercury, dusted with iodoform, and wrapped the wounded member therein. After padding a splint and applying, we enveloped the whole with cotton, and retained by a light bandage.

I saw the child on the 11th, and with the exception of the forefinger, which I saw he would lose, I felt confident that the hand would be saved. On the 13th, word was sent I had better

see him, but, being engaged with an obstetric case, I did not get it in time. On the 14th I was necessarily absent in Flint. On the 15th, to my dismay, I found the jaws were stiff. On inquiry, I found the friends had first noticed the trouble the preceding evening, but had thought nothing of it. On examining the hand, I found the forefinger, the tips of the middle and ring fingers, and the little finger, dead, while a large sphacelus occupied the palm and back of the hand. In the desperate hope that the trouble might be stayed, I advised amputation, Drs. WISNER and CAREY concurring. With their assistance I amputated midway of the forearm. Advising that he be kept well under the influence of morphia and bromide of potassium, employing the latter by enema, and sustained by rectal alimentation, I left him in care of Dr. WISNER. I saw him again on the 16th; no amelioration of the symptoms; opisthotonos marked. He grew rapidly worse, and died at 10 P. M.

I am glad to say that my experience with traumatic tetanus is very limited; and the literature of the subject, within my reach, is meager and unsatisfactory. If some of our surgeons would give their experience with this terrible malady, they would be eagerly received. If there was a period of incubation, was the poison germ planted at the time of the accident, and developed in spite of careful cleansing with the mercuric solution? If there is no period of incubation, and the disease is one of the neuroses, can no precautionary measures be taken in wounds of the plantar or palmar surfaces?

REPORT FROM THE DETROIT BOARD OF HEALTH.

As the reporting of typhoid fever cases has become a law, and is therefore made necessary, the Board of Health of the City of Detroit, in session convened, Nov. 12th ultimo, has decided they should be reported to the Health Officer, but rules it not necessary to placard the houses where such patients are sick.

Reports can be given the Health Officer by telephone or postal card.

By order of the Board.

SAMUEL P. DUFFIELD, M.D., Secretary.

DETROIT, Nov. 16, 1889.

SPECIAL FORMS OF EXTERNAL ERYSIPELAS.

TO THE EDITOR OF THE MEDICAL AGE:

In the MEDICAL AGE of Nov. 11th inst., Dr. JAS. T. SMITH, of Monticello, Georgia, describes a case concerning the diagnosis of which he expresses himself as being not clear.

In Erichsen's Surgery, under the head, "Special Forms of External Erysipelas," will be found an almost exact detail of the symptoms manifested in the case reported by Dr. SMITH. Yours truly, C. B. HIGGINS, M. D.

PERU, Ind.

The Medical Age.

A SEMI-MONTHLY REVIEW OF MEDICINE.

B. W. PALMER, A. M., M. D., Editor.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

DETROIT, MICH., NOV. 25, 1889.

Editorial.

THE APPROACHING REVISION OF THE PHARMACOPŒIA.

"*Eile mit weile.*"

Progress in pharmacy, is progress in medicine, and all physicians should be inspired by a desire to improve in every possible way the Pharmacopœia, which represents the accumulated experience of ages in the science and art of pharmacy, and constitutes the most reliable guide to pharmacists and physicians who would acquaint themselves thoroughly with medicinal principles and their effectual combination in eligible pharmaceutical preparations. The value of any addition to the Pharmacopœia suggested by pharmacists should, therefore, receive the earnest consideration of physicians, and the medical profession should be able to furnish from their clinical experience many important and vital suggestions to the Committee who are entrusted with the important duties of revision. This Committee, indeed, invites criticism from all well informed sources, and has widely distributed a Digest of Criticisms of the present Pharmacopœia for the purpose of the freest and fullest discussion by all concerned. It is in this spirit that the following criticisms are submitted.

As the generally accepted standard of strength and quality for medicinal preparations, the United States Pharmacopœia should be most carefully compiled and removed as far as possible from all mercenary influences. One interest which is liable to influence the publication of the next Pharmacopœia disadvantageously, unless such influence is properly controlled and judiciously acted upon, is the manufacturing pharmaceutical interest.

Owing to its wide-spread circulation, its general acceptance as a standard, the Pharmacopœia must exert a very powerful influence both with physicians and druggists in the direction of inducing a larger consumption of pharmaceutical preparations. Thus, houses who own copy-righted, trade-marked, or patented, preparations would be willing to pay large sums to induce the Pharmacopœia to re-

cognize the same. The adoption of a new standard of pharmaceutical preparations to substitute existing standards of the present day, could be used to great and profitable advantage by the manufacturers if they controlled by copy-right, or trade-mark, or patent, the name of the line of pharmaceutical preparations, or the line itself. What a profitable thing for the originator, for instance, would be the recognition by the Pharmacopœia of the line of pharmaceutical preparations known as specific medicines, specific tinctures, or green root tinctures, as a substitute for the fluid extracts which have been so long in vogue. Shall antipyrin, antifebrin, sulphonal, chloralamid, and many other specialties of foreign manufacturers, who are flooding the country with remedies protected by patented processes, or fancy trade-marked names, so as to secure to their possessors a permanent monopoly at any outrageous price they may wish to arbitrarily fix, be admitted to the Pharmacopœia? Are such remedies and their literature to usurp a place in scientific literature to the disgrace of the legitimate interests of pharmacy, the aggrandizement of foreign capital, and the destruction of pharmaceutical nomenclature?

We do not wish to be misunderstood in this matter. We do not wish to reflect on the therapeutic utility of such preparations, but merely to make thoroughly apparent the caution and care necessary to consider the true character and tendencies of the many products advanced for Pharmacopœial endorsement.

It is not necessary to amplify on these points. The tendencies of these defilers of the Pharmacopœial temple are too well known to ever receive the recognition they covet.

There are, indeed, many actual and much needed improvements required in this temple of pharmacy, if we may continue our simile, which have none of the disadvantages, to say the least, of this rapidly-growing progeny of foreign invaders. Let the Committee address their attention to these. To what standards of excellence do our average manufacturers of medicine live up to at the present time? Are these standards the highest and best known to pharmaceutical science? Not at all, and we shall take occasion in further comments on this important subject, to mention some improvements in pharmaceutical processes, the claims of which are eminently more worthy of consideration by the Committee of Revision. It will be readily seen that manufacturers of pharmaceutical preparations generally, could well afford to bring to bear great influence upon the projectors and controllers of the Pharmacopœia, if they had the slightest hope of inducing the Committee to act upon their suggestions.

It is, therefore, essential that the Committee in charge of the Pharmacopœia should be actuated solely by a regard for scientific and humanitarian interests. They should be men not only honest in purpose, but they should also be sufficiently competent by experience to judge as to the merits of each individual presentation. They should be free from all bias and prejudice. *Eile mit weile.* To make haste slowly should be their guiding rule.

THE NECESSITY FOR A HIGHER STANDARD OF ACCURACY FOR TOXIC AND NARCOTIC DRUGS.

Show us a physician or pharmacist who has not been many times puzzled by the variable action of toxic drugs, indicating lack of uniformity in preparation, and such an one will be found to have had no practice in either art. While the question of standardizing preparations of toxic drugs is not a new one, and has been the dream of every progressive pharmacist and physician, practically it would seem difficult to determine just what standard of strength to adopt.

According to the Pharmacopœia, one cubic centimetre of a fluid extract represents one gramme of the drug employed in making it. It is apparent that such a preparation, although made from the best quality of drug the market affords, will not be of invariable strength. In the purchase of this crude drug, the quality must be largely judged by physical indications, which are often very deceptive. An estimation of the active medicinal ingredients is the only true criterion by which to judge the quality of a drug; and this is subject, even in carefully selected drugs, to a wide variation. Fluid extracts must, of course, share in this variability. It is this defect which is to be remedied.

That a pound of crude drug of good quality, properly manipulated, should produce a pound of fluid extract, seems a good basis for operations; but when the variability of crude drugs, and the consequent variability of fluid extracts produced therefrom, is known, one cannot but look forward to the advent of the new Pharmacopœia with the hope that some uniform and more reliable method of standardizing fluid extracts, upon some safer and surer foundation, by which a preparation must be produced that can be used with more confidence in its definite therapeutic value, may be adopted. Individuals and manufacturing houses have, in a measure, recognized the necessity for such a standardization, and have in the past in various ways endeavored to meet the requirements of the medical profession in this respect.

The result has been, that there are already standardized preparations on the market, but

these vary greatly in the strength adopted as the standard. There should be one only and for this the Committee of Revision of the Pharmacopœia for 1890 should prescribe the process. To do this intelligently, they should avail themselves of the work that has already been done in this direction; and this brings us naturally to a discussion of this work, which we shall consider below.

THE WORK ALREADY DONE IN THE DIRECTION OF STANDARDIZING FLUID PREPARATIONS.

The first and most notable advance made in the direction of supplying standardized preparations not open to the dangers of the existing Pharmacopœial processes for fluid extracts, was by Messrs. Parke, Davis & Co., who introduced in 1883, a class of assayed preparations which were entitled Normal Liquids. The standard decided upon for these fluids was the result of long experience in the collection, purchase, examination and analysis of crude drugs with a determination of the amount and character of their active principles. The reliability of normal liquids soon led to their large consumption, and the medical profession have evinced their preference for them to such an extent as to make them now an established and popular method of exhibiting the toxic and narcotic drugs.

Normal liquids may be defined to be concentrated tinctures, the methods of manufacture of which serve as models for imitation. They represent more closely than fluid extracts made by the present Pharmacopœial methods the average standard strength crude drugs. The simplest explanation of their nature would probably be to regard them as fluid extracts adjusted by assay to a fixed standard of strength which make them absolutely uniform in composition and therapeutic action.

The favor with which normal liquids, and assayed products generally, have been received by representative men of the medical profession, has led us to believe that the best interests of pharmacy will not be served unless these or like preparations are officially recognized. For concentrated tinctures of a definite strength, the name "normal liquids" appears to be happily chosen, as it implies a definite standard of strength. The list should embrace preparations of the more potent crude drugs, 1 Cem. representing 1 gramme of drug of standard strength.

It does not seem to us from a careful review of all efforts made in this direction that any have met with equal acceptance, or merit as much appreciation. Whatever may prove to be the decision of the Committee as to making such assayed preparations official, there can never be any question as to whom the honor of their actual practical introduction is due.

As the time approaches when the revision is to take place (and in the minds of thinking men the standardization of fluid extracts is now an accepted fact), there will no doubt be many competitors for this honor who may claim by reason of a mushroom-like growth in the field of this new departure, official recognition for scientific work.

It will be necessary on the part of the Committee of Revision, therefore, to carefully investigate the claims in this direction, and when awarding the credit for such work to see that they do not place the laurels upon the wrong brow.

Unsupported and disinterested scientific labor, no matter from what source, should always be welcomed with the endorsement of scientific men, and we sincerely trust that the efforts made in this direction by those deserving it, will receive full appreciation at the hands of the compilers of the forthcoming Pharmacopœia.

CAFFEINE IN HEART DISEASES AND ADYNAMIC STATES.

In 1863, KOSCHLAKOFF and BOTKIN, of St. Petersburg, published observations favorable to the employment of caffeine in cardio-pathies accompanied with atheroma (the *myo-arterial cardio-pathies* of HUCHARD); and three years later JACCOUD wrote: "Under the influence of caffeine administered in doses of from four to fifteen grains daily, the impulse of the heart acquires force; the beats become regular, and as a necessary consequence, the secretion of urine augments."

In 1882, M. LEPINE, after clinical trials, demonstrated its value in large doses in this same class of diseases, which was at about the same time corroborated by HUCHARD. The doses recommended in weakened or exhausted conditions of the heart-muscle were from 1 to 2½ grammes daily; a dose of five grains every four hours, or two hours, till two to two and a half grammes are taken, would be regarded as suitable.

According to HUCHARD, who employs hypodermatically with an equal quantity of salicylate or benzoate of soda, caffeine acts more rapidly than digitalis, is more speedily eliminated, and does not accumulate in the organism, at the same time being better tolerated. It raises the arterial tension and augments diuresis, and excites the cardiac muscle, though only on condition of being prescribed in large doses. In the last stage of asystolia, when digitalis is inefficacious or dangerous, caffeine may produce results quite unhoped for; in any event it is far superior to the former, a fact due to direct action on the muscle of the heart. Caffeine, in fact, is a poison to muscular fibre,

just as strychnine is to the nervous system; this direct stimulation of the muscular fibre, however, is not exercised simply on the myocardium, but all the muscles of the economy feel the influence, even the uterus. MISRACHI has recently demonstrated its hæmostatic effects when exhibited hypodermatically in puerperal metrorrhagia.

As a diuretic, caffeine is inferior to digitalis. In renal dropsies, however, it acts with more certainty and regularity, and HUCHARD supposes its action to be due, first, to the augmentation of blood pressure which follows its use; second, to its stimulating or modifying effect on the renal epithelium. In hepatic dropsies, however, its diuretic action is practically *nil*.

Apart from effects on the heart, the drug is a tonic to the nervous system, and as such, it is useful in all adynamic states. Here the subcutaneous injections of caffeine and salicylate of soda constitute a most advantageous mode of administration.

Also, in angina pectoris it may be useful when hypodermatically employed, especially where the cardiac weakness constitutes the chief danger by reason of tendency to dilatation. Along with the caffeine injections also, the iodide of sodium treatment, often of so great curative value in angina pectoris, may be followed, for sodium iodide is an indirect heart tonic, facilitating the flow of blood in the vessels and diminishing the peripheral resistances by lowering the arterial tension.

In typhoid fever, the kidneys are often affected—blocked with waste products, affording a profound source of danger. Another danger is derived from general adynamia; and still another from enfeeblement of heart muscles, often indicated by the fœtal rhythm of the pulsations. Here no remedy proves so efficient as caffeine, when administered hypodermatically. HUCHARD joins thereto injections of ether, and of ergotin, given "to augment vaso-constriction and raise arterial tension."

At the onset of the eruptive period of measles, grave pulmonary congestion of asphyxiating form is sometimes observed, in fact so grave as to overcome the heart and threaten speedy death. Here also caffeine employed subcutaneously has more than once triumphed.

The pneumonia of old people is always grave, and very generally fatal. The source of danger being cardiac insufficiency due to fatty degeneration or arterio-sclerosis. The hearts of the aged are often competent for their tasks if no sudden strain comes upon them, but let pulmonary congestion set in, they readily give way. In such instances hypodermatic injections of caffeine fulfill a three-fold purpose; they excite the myocardium; combat the tendency to adynamia; and favor the functions of the renal emunctory, always so greatly compromised by reason of arterio-sclerosis and sclerous lesions of the kidneys. In these senile pneumonias with cardiac degeneration, caffeine is far superior to digitalis, and life is often saved by early and frequent resort to the subcutaneous injections of this precious medicament.

HUCHARD condemns the salts of caffeine—citrate, valerianate, bromohydrate—as unstable and always unreliable, and advises the use of pure caffeine associated (to favor solubility) with benzoate or salicylate of soda. Now the combination of caffeine with citric, or valerianic acid, etc., hardy results in the formation of a salt at all, but when caffeine is blended in solution with benzoate of soda, we have a double salt of benzoate of soda and caffeine.

He proposes the following for pills, at the same time, insisting upon the fact that in states of prostration one will get more benefit from caffeine by subcutaneous injections than in any other way:

℞ Benzoate of sodium,
Caffeine, ää gr. xlv.
Ext. stigmata maidis, ʒ jss.

M. For 60 pills. Sig. Two pills twice or three times a day.

℞ Ext. cinchona, ʒ ijss.
Benzoate of soda,
Caffeine, ää gr. lxv.

M. For 100 pills. Sig. Two pills before each meal.

COLD AIR AS A THERAPEUTIC AGENT IN GERM DISEASES.

The medical reader has heard so much of late of the utility of warm air and medicated air inhalations in tuberculosis that it may be of interest to detail some of the therapeutic advantages of cold air.

Dr. FELIX OSWALD, in an entertaining article on Cold Air and Disease, has presented some facts which are worthy the careful consideration of physicians. Although not all of them are novel, the inferences drawn therefrom, if accepted, would materially modify the treatment of an important class of prevalent diseases.

"Warmth is life, frost is death," is a rule that applies to disease germs and microbes far more strictly than to any of the higher creatures of nature. Life, indeed, teems in the tropics, and decreases in abundance and variety as we approach the poles; yet at the very borders of the Arctic Circle we still find myriads of water-fowl, fish, seal, foxes, and various species of the deer tribe, while insects are represented only by a few varieties, and disappear almostly entirely during the six coldest months of the year. The mosquito swarms of the Hudson-Bay territory, for instance,

subside considerably about the middle of September, and vanish completely before the end of October. That laudable habit is shared by nearly all the invisible disease-germ fiends which, according to VIRCHOW, fill the summer air as flour-dust fills the atmosphere of a grist-mill. Not all of them perish conclusively, but, under the persuasive influence of a good frost, become non-aggressive, torpid, inactive and unable to establish their colonies in the interior organism of the human body. Now, that fact is really of far more importance than any of the numerous conflicting theories about the exact definition of a disease microbe. Some learned pathologists incline to the belief that the active principle of swamp malaria is of vegetable origin, and can be imbibed by insects (gnats, for instance), and communicated by their bite. Mosquitoes and malarial disorders are nearly always found together, argue the exponents of that hypothesis. Others maintain that the malaria microbe is a microscopic animal; still others ascribe chills and fevers to a chemical change in the composition of the atmosphere; but all agree that malaria yields to a low temperature. Yellow-fever microbes, too, have been variously described by various investigators, whose controversy does not diminish the correctness of the prediction that yellow-fever patients will yet be treated by artificial refrigeration, and that the hospitals of the future will use large quantities of ice. All sorts of febrile disorders that refuse to yield to quinine could be frozen out of the system. In the meantime, suggestive nature performs that operation free of charge for all the inhabitants of the upper latitudes who care to avail themselves of her services. About the middle of October the traffic in malaria-bitters begins to slacken, and typhoid fever, ague, and cholera morbus become less frequent and less malignant. The mortality of city babies by that time has decreased 50 per cent. At the time of its maximum period, in August, a single cool day—a mere shift of the south wind to west or north—sufficies to renew the tenure of life to thousands of infants whose misery would only be aggravated by drugs, and whose vital spark has for days flickered at the verge of extinction. In the cities of our Eastern seaboard, and throughout the lowlands of the Mississippi Valley, a cold-wave signal is the death angel's truce flag. Yellow-fever becomes phenomenally rare in the temperate zone after the end of November. Dyspeptics can not do better than begin their movement cure about the time of the first night frosts, when the benefit of out-door exercise is seconded by the same influences that enable a Norwegian hunter to digest a quantum of meat that would surfeit seven Hindus. Nearly every known disease of the human body becomes more curable in cool weather.

In the course of the last fifty years a number of observant physicians have evinced a more and more outspoken conviction that pulmonary disorders make no exception to that general rule. Three generations ago, all lung troubles, almost without an exception, were ascribed to the influence of cold air—a delusion perpetuated in the still sadly-misleading word "cold" as a synonym of catarrh, and in the not yet quite obsolete fashion of sending consumptives to an early grave in the sultry coast regions of the tropics. Cold night air, "draughts," and "raw March winds," had become the bugbears of lung-sick persons. A disease due to a low temperature seemed naturally to demand warmth for its cure, and patients who could not afford the expense of a journey to Florida or the West Indies, were kept penned up in the stifling atmosphere of an over-heated sick-room, with every breath of fresh air carefully excluded. Those delusions were first shaken by the result of comparative statistics. The mortality records of every civilized country, East, West, North, or South, demonstrated the suggestive fact that the prevalence of consumption bears an exact proportion to the prevalence of in-door occupations. In pastoral Norway, pulmonary disorders were found to be less frequent than in cotton-spinning England; in frosty Switzerland, less frequent than in sunny France. The unanimous reports of Arctic travelers established the still more remarkable circumstance that in the polar regions lung diseases are almost wholly unknown. "Due to a diet of train oil," argued the old-time doctors. "Let us try that specific." And the cod-liver oil nuisance was added to other sorrows of afflicted mankind. KOHL, FATHER DE SMETH and other explorers of the North American inland regions, in the meanwhile noticed that the hunting tribes of our frozen Northwestern prairies share the privilege of weather-proof lungs at a distance of two thousand miles from the next train oil kettle; while the reports of the Naples hospitals proved that the development of factory towns had made consumption extremely prevalent in the more than half-tropical coast districts of southern Italy. At the same time, experience had left no doubt that a change from in-door to out-door occupations could, in four out of five cases, be relied upon to avert the doom of hereditary consumption. The sickly wives of Silesian weavers recovered from malignant lung disorders after the removal of their household to the backwoods of the Tennessee Valley; hollow-cheeked mechanics, worn out with hectic coughs, became athletes by adopting an out-door mode of life; of five sons descended from an ancestry of consumptives, four died in city workshops before the completion of their fiftieth year, while the fifth, on his mountain farm, outlived his nephews and

grandnephews. Consumption was gradually recognized to be a house disease. It is true that the theory of the old-time physician is apparently supported by the circumstance that lung disorders become more frequent after the end of October, and subside about the middle of May; but should that phenomenon be wholly unconnected with the fact that winter is, by excellence, the season of in-door life? Savages who spend their winters out-doors, and trappers in their draughty winter camps in the gully of a Western sierra, know catarrhs only from hearsay; and we have seen that the natives of the Arctic regions share that immunity in spite of their ill-ventilated hovels, which may keep out snow-flakes, but can not counteract the penetrative force of a polar winter storm. These facts might suggest considerable modifications in the conventional method of treating catarrhs and other disorders of the respiratory organs. They have already led to the practical establishment of the truth that cold, pure air, rather than warm, foul air, is Nature's specific for the elimination of lung microbes, and scores of consumptives are actually cured by their removal from the sultry lowlands of the Mississippi Valley to the frosty highland regions of the Adirondacks.

THE RESTRICTION OF PROSTITUTION.

Prostitution is a vice that in its results involves guilty and innocent alike. It is a moral pestilence that, creeping insidiously into the privacy of the domestic circle, destroys family ties, and threatens even the very foundations of society. With such an evil, what must be the remedy?—especially as diseases incident to brothel life are constantly spreading, destroying the health and lives of myriads of men and women, old and young alike; even the unborn infant and the babe at the breast, are not exempt.

Is the evil to continue, and is the reticence that characterizes the medical profession in dealing with this subject to remain unbroken?

Looking at the question in its various lights and phases, we are at once confronted by the fact that absolute prohibition is, and ever has been, futile and absurd: This is amply emphasized by history, for even the Church, when it held the reins of secular power—a power that exacted the utmost deference and subservience from the laity—put forth its most strenuous efforts in vain. The guilty, male and female alike, were scourged, maimed, hanged, burned at the stake, broken on the wheel, and even excommunicated—the most dreadful of all penalties in superstitious times—but without accomplishing a single good result. Indeed, the vice notoriously throve under persecution. To-day, there are legal enactments without number looking to repression, yet in spite of all, the sins of parents are yet bequeathed as a heritage to their posterity, and the maladies derived from illicit sacrifices at the shrine of Venus—which by the bye assumed the characteristics of a veritable plague at the time when adultery and prostitution demanded death penalties—continue to beget increasing evils, moral, physical, mental, jeopardizing life and health, and threatening the very foundations of society.

If, then, prostitution must exist, as it ever has done, and certainly ever will do, so long as the human race is endowed with normal passions and instincts, is it not full time the inevitable in the situation is accepted, and measures adopted to keep within the bounds demanded by public weal—measures looking to mitigation by restriction such as will lessen the present influences in fostering crime and spreading the most loathsome of diseases? The liquor traffic, not nearly so pernicious from moral and health standpoints, is already, in all civilized states, subjected to control, but the more insidious, deadly, and contaminating traffic in the most irresistible of human passions, goes on practically unchecked.

It is a well known fact that syphilis is upon the increase in America, where this evil is practically unbridled in its license; and though not so rapidly fatal as many other maladies, it is more dangerous in that it is certain though insidious, and its ravages not confined to the individual, but ever threatening to all with whom he or she may be brought in contact even to the children of the third, fourth and succeeding generations.

On the continent of Europe, where prostitution is regulated by law, venereal diseases are steadily decreasing, and their ravages are more mild than formerly; the virulence of infection is less intense than in countries where prostitution, prostitutes, and houses of ill-fame are subject to no absolute restriction. In Europe, infection is derived chiefly from women who are not ranked as prostitutes proper (shop-girls, peasant women, and the class of wage-earners) until detected, when they are subjected to the same restrictions.

Again, the women are subjected to semi-weekly medical and police examination, and the instant disease is detected, the individual is carefully segregated and restricted, limiting her power for infection; while in this country, under similar circumstances, the limit of infection is determined only by the inability of the prostitute to ply her calling. It is a well-known fact, moreover, that the virulence of infection is increased in proportion to its standing in the one communicating.

Aside from the foregoing, there is another factor of no little importance. In this country the bagnios are the shelter of the criminal

classes, whereas in Europe, owing to their being constantly under the supervision of the police, with no back entrances or side exits, they are shunned.

Again, the influences exerted by registration and police supervision cannot fail to be productive of good results in other ways. The very fact a den of prostitution is publicly known, especially if designated by some especial mark, is alone sufficient to deter many from visiting who now patronize because of supposed unknown or sequestered character.

In a choice between two evils, one naturally turns to the lesser. And those members of society who are not swayed by fanaticism and rule-or-ruin sentiments, have long recognized that a license law presents the only definite and satisfactory solution of the social problem. The plea that it tends to "render vice respectable," which is so constantly reiterated, is specious. Vice can never be respectable, since when it attains the latter status it is no longer vicious: further, vice is made more respectable by being left alone than when subjected to the control that designates it as both vicious and criminal.

At present, also, there is no way of saving the unfortunates who recruit the class of prostitutes; while under legal supervision, in France, thirty per cent. are saved from a life of continuous shame, and upwards of twenty per cent. subsequently marry and attain good homes.

IS ORIGINALITY LIMITED.

What is originality, and how many of us are original? Looking through our exchanges day by day, we are constantly struck by the evolution of ideas practically identical, and seemingly new, from widely different sources and localities. After all, is there anything really new upon this planet of ours, or is each discovery heralded, merely a revamping of some old and perhaps forgotten idea? Truly it seems as if the latter is the case. When "MARK TWAIN" gave utterance to a thought he imagined was purely original in dedicating one of his books, he subsequently found he had merely clothed in prose language an idea that had long before been embalmed in rhyme by that Poet of poets, OLIVER WENDELL HOLMES, Writing to the latter and apologizing, he remarked he could not account for it, except on one occasion when confined to his bed for months, he had read and reread "Songs in Many Keys," when the idea must have been impressed upon his brain indelibly. The Professor replied, substantially, that we all employ the ideas of others, reclothing, recombining and giving individuality; but after all they are not new even when traced to their supposed source. Undoubtedly this is a fact. Man's egoism will not perhaps permit him to admit it, yet his mental scope has limits, and he is forced continually to work over the thoughts of others, which, perhaps, appear to him in such guise their sources are not recognized. Following this line of thought the New York Commercial Advertiser remarks:

"The writer or thinker who puts an old idea into new and impressive form, is fully as much of a public benefactor as the man who invents a new idea. The man with an absolutely novel idea is a phenomenon not often seen in history or literature. All of us are borrowers. If ideas were refused recognition because something similar had been proposed before, there would be a pretty outlook for progress in civilization. This is as true in literature as in history. The just criterion of a literary idea is not whether it is new, but whether it is ably put and forcibly developed. Plenty of people before Mr. ROBERT LOUIS STEVENSON'S day had reflected upon man's dual nature; but "Dr. Jekyll and Mr. Hyde" was none the less original for that; indeed, one of the highest tributes which the public can pay to a literary man is the confession that he has put into clear expression the ideas which were not original, but which have floated vaguely in the human mind ever since man began to think. Who in the long succession of philosophers and sages ever propounded a really new idea? "There is nothing new under the sun," saith the Preacher. The originality of history, philosophy, and literature, has consisted in putting old truths and aspirations into new forms."

Book Notices.

TEXT-BOOK OF ANIMAL PHYSIOLOGY. By Wesley Mills, M. A., M. D., L. R. C. P. (Eng.) Cloth, 8vo. pp. 700. Price $5.00. Published by D. Appleton & Co., New York.

A marked feature of this volume is the teaching of general biology, and thorough treatment of the phenomena of reproduction, in the introductory chapters.

Though conceived as a text-book, more especially for veterinary students, its value is such as to give it general scope, and it is available not only for the student of general medicine, but also the practitioner. No one can peruse it without finding his ideas of physiology broadened, and his knowledge correspondingly increased.

The comparative method of treating physiology, as adopted in this volume, is now recognized as the only true one, and this necessitates familiarity with embryology and the welding principles of evolution as part of the essential structures of zoology. In this way accuracy and clearness of observation are in-

culcated. Another most valuable feature is, that each chapter concludes with a review or summary of its contents.

Systematic instruction in either macroscopic or microscopic anatomy, has not been undertaken; indeed, could hardly have been attempted without increasing the bulk of the volume to inconvenient limits, by taking from the space that is required for physiology proper; nevertheless attention is duly called to those points which have especial bearing upon functions.

The author remarks, regarding the subject introduced at the very commencement of the volume, that an "attempt is made to use embryological facts to throw light upon the different functions of the body, and especially their relations and interdependence. It therefore became necessary to treat the subject early. It is expected, however, that the student will return to it after reading the remaining chapters of the work."

All in all, the volume is one that is needed by every earnest progressive practitioner and physiologist.

Diabetes Mellitus and Insipidus. By Andrew H. Smith, M. D. Paper, square 12 mo., pp. 75. Price, 25 cents. Published by Geo. S. Davis, Detroit.

This neat little volume is No. 2 of the Leisure Library Series for 1889. In typography and binding it is as attractive as the most æsthetic works of fiction; and the contents are fully in accord with its exterior. No attempt is made to compress all that is known regarding Diabetes into this volume, but merely to give the points which most interest those who come in contact with the disease. Consequently little space is given to the discussion of abstruse theories and undetermined questions regarding physiological and pathological chemistry and ætiology. But the author gives us a reflection of his own experience and knowledge, at the same time supplementing with the knowledge and experiences of others, and in a way that is most practical and helpful. It is a volume worthy of extended circulation, and will well repay perusal.

Medical Bulletin Visiting List for 1890. Small 12mo. Price $1.50. F. A. Davis, Publisher, Philadelphia, Pa.

The title page asserts this is prepared upon an "Original and Convenient plan." The "originality" is borne out by examination, but the convenience is more than doubtful, since the arrangement is made on the supposition, not alone that the physician will have always the *same* patients each *week*, but also only about *thirty* during a whole *month*. It is impossible to record more. The printed information is culled largely from the International Medical Formulary; the Vaccination, Bills and Accounts, Cash, Obstetric Record, and other memoranda bear striking resemblances to other works of this class and character. The paper is inferior, the binding bad, which is in marked contrast to the work that usually comes from this house.

The Physicians' Perfect Call List for 1890. Small 12mo.; pp. 200; price $1.50 Published by Geo S. Davis, Detroit.

In size and shape, this appears to be the most convenient of all the "Visiting List" series. A prominent feature is the absence of all "deadwood" and advertisements, and the extremely convenient and practical arrangement of most practical contents. The information demanded for ready reference are upon the inside of covers or on fly-leaves. The posological table, too, is a new departure that cannot fail to commend itself; it is very thorough and complete, newly revised, and embraces the very latest, (including the non-officinal), remedies introduced. Especially commendable is the obstetrical table, in two colors, and the concise mode of keeping all accounts, debit, credit, expense, losses, etc. Paper and binding are alike superb.

Physicians' Visiting List for 1890. Small 12mo. Price $1.50. P. Blackiston, Son & Co., Publishers, Philadelphia.

This is the thirty-ninth year of publication of this list, which still holds its own in spite of the many in the market. It has few superiors, and fewer equals. Conveniently and concisely arranged, of excellent paper and superior binding, it is a very neat and attractive volume for the pocket of the physician; its only undesirable feature is its length, being so short it tends to crumple in the pocket.

The Medical News Visiting List for 1890. Small 12mo., pp. 224; price $1.50. Published by Lea Brothers & Co., Philadelphia.

A neat volume intended for a daily record of patients. We are surprised, however, to find listed among "Remedies Not Yet in General Use:" *eocaine*, *antifebrin*, *convallamarin*, *icthyol*, *iodol*, *lanolin*, *menthol*, *nitro-glycerin*, *salol*, *santonin* and *thymol*. This hardly tallies with the claim of the publisher that "the List for 1890 is the result of thorough revision of its predecessor."

Medical and Surgical Monographs. Vol. iv, No. 2. Paper, 8 vo., pp. 272. Price, $1.00. Published by Wm. Wood & Co., N. Y.

This number embodies "Surgery of the Knee Joint," by C. B. Keetley, F. R. C. S.; "Aids to Ophthalmic Medicine and Surgery," by Jonathan Hutchinson, Jr.; "Bacteriological Technology for Physicians," by Dr. J. C. Salomonsen.

All are very readable papers, Bacteriological Technology especially, which is very thorough and complete, and well illustrated.

A Manual of Obstetrics. By A. F. A. King, A. M., M. D. Fourth Edition. Large 12 mo., pp. 430. Price, $2 50. Lea Brothers & Co., Publishers, Philadelphia

This volume is a very fair compendium of midwifery. The aim of the author, as stated, is to "present in an easily intelligible form such an outline of the rudiments and essentials of obstetric science, as may constitute a good ground work for the student at the beginning of his obstetric studies."

If the work is confined to the lines indicated, it will doubtless answer a good purpose; but if employed as a work of reference and as a substitute for text-books proper, its influences cannot well be otherwise than ill.

It is, however, a very concise, neatly printed volume, and the superior excellence of the plates is most commendable.

Essentials of Pathology and Morbid Anatomy By Armaud Semple, M. D. Cloth, 12 mo., pp 160. Price, $1.00. Published by W. B. Saunders, Philadelphia.

This is number 6 of Saunders' Question Compends, and is intended to fit the medical student for examination. We have before expressed the opinion that these books are of more than doubtful utility, tending as they do to inculcate slovenly and imperfect knowledge. They prove but "slender reeds" for those who enter upon the study of medicine with a desire to obtain thorough practical knowledge such as is essential to honest professional work.

Notes and News.

The Anthropology of the Gypsies.—In a recent number of the "Wiener klinische Wochenschrift "Dr. Hinterstoisser gave a brief notice of a monograph entitled "Die Zigeuner," by Dr. A. Weisbach, of the medical corps of the Austrian army. Dr. Weisbach has made a careful study of the peculiarities of the bodily development of fifty-two Gypsies, all soldiers in a Hungarian regiment. He refers in the beginning to the great resemblance of the Gypsies to the ancient Egyptians (from whom they profess to be descended), although their cranial formation places them closer to the very dolichocephalous Hindu. The bodily formation of these fifty-two men had been prematurely developed and exercised, as demonstrated by the employment of the measurement system. They were of the average weight and height that appertain to the pure dark type of the Indo-European stem. The meso-cephalic projection of the head was small, diminishing moderately towards the base; of the 53 men, 11 were dolichocephalous, 28 mesocephalous, and 13 brachycephalous. They had low foreheads, moderately high cheek-bones, and projecting jaws; the nose was of considerable length, well formed, with a straight dorsum, the upper portion being very small; the neck was short and thick; the thorax of moderate depth, slight circumference, and slightly flat; the pelvis small, especially between the anterior superior spines of the ilia. The arms were very short. The legs were longer than the arms. The feet were broad and high, with moderate length and thickness. The precise results of the measurements were recorded in tables in the monograph.

Over-Eating.—The late venerable M. Chevreul never cared for the pleasures of the palate, consequently ate very little himself and railed at those who ate more. He considered that the Revolution did France a great evil by throwing the cooks of royalty and of the nobility out of employment, and thereby leaving them nothing to do but to open cheap restaurants and serve palate-tickling meals to the masses. M. Chevreul may have gone to an extreme in his beliefs, but it is a generally admitted truth that more illness is caused by over-eating than by under-eating. An occasional banquet will do no harm, but the nightly banqueting that is indulged in by some of our food-loving citizens inevitably tells upon them sooner or later. Unfortunately, as we grow richer, we give ourselves more and more to the pleasures of the table. I am a firm believer in good cooking and think that the average American *cuisine* is enough to make a nation of dyspeptics; but beware of sauces!—*The Critic.*

The Doctor.—

Oh, doctor, in our hour of ease
We scorn your counsel as we please,
When peach and watermelon green
The bosom wring with anguish keen;
When in the night the hoarse "ka-hoop"
Rouses the house with fear of croup;
When midst the storm that rends the skies
"Newralagy" tackles grandma's eyes;
When roaring thunder clouds low hung
Retard the play of ma's left lung
When wintry drifts the roads impede
And baby's nose begins to bleed,
When hub-deep mud clogs all the way
And Tommy's earache comes to stay,
Whene'er the least of human ills
Clamors for poultices or pills,
Come right away—no matter how—
A ministering angel thou.
All aches and pains are cured by you,
Save pa's tick-dollar I owe you

—Burdette.

Patent Medicine in Austria.—The report comes that the entire stock of Warner's "Safe Cures" in Vienna was recently seized by the police. The law requires that a copy of the formula be deposited with the authorities and the pharmacists. This was complied with, but the Pharmaceutische Post, from which the account is taken, believes that the offense lay in the quack-like and charlatanic recommenda-

tions which accompany the preparations, and against which many severe rulings and examples have recently been made. Probably it will take a good many years yet to educate the United States to the point of compelling the formulæ of patent nostrums to be published.

The Ill Effects of Mouth-Breathing.—S. C. G. WATKINS, in the "Ohio Journal of Dental Science," says: "I know the case of a child that has been under my care from birth. At birth and up to the third year the child had a perfectly formed and normal arch; but it acquired the habit of breathing through its mouth. The result has been that the muscles, in the effort of holding the mouth open in that way, are drawn down over the teeth, and the arch is decreasing in width and becoming narrow—so much that you can not do more than place your finger in the center of the arch: the child is now nine years of age. There has been a radical change in the shape of the mouth, and from no other reasons than mouth-breathing and the force of the muscles on the side of the mouth."

The Late Isaac E. Taylor.—PROF. ISAAC E. TAYLOR, eminent in the organization of Bellevue Hospital Medical College, and as one of its faculty, is dead. His refined, gentle, kindly nature, and scholarly attributes, endeared him to all with whom he came in contact. "An illustrious name is transferred from the active list to the roll of honor of those who have bravely borne themselves in the foremost and fallen triumphant."

It may be truly said of Dr. TAYLOR, that he had fewer enemies, and more friends, than fall to the lot of most who are placed in public position and have won recognition as teachers and authors.

Causes of Unfitness For Military Service.—According to an article in a Russian military medical journal, the number of young men liable to military service in the Kieff district who were rejected on medical grounds during the year 1883 to 1886 was more than 60 per cent. of those examined. The foremost ground of objection was myopia. This defect was especially common amongst Jews. The same remark applies to eruptions of the skin and scalp, which were also frequent causes of rejection. Another very frequent cause of objection was hernia, and here again the Jews were found to be affected in this way more frequently than the Christians.

Another Color Reagent for Cocaine is announced by Dr. GREITTHERR, in the Pharm. Zeit. The active agent in this process is palladium. To a few drops of cocaine solution about a drachm of chlorine water is added; on the further addition of 2 or 3 minims of palladium chloride solution, a beautiful red precipitate is thrown down—slowly decomposed by water, insoluble in alcohol and ether, but soluble in a solution of hyposulphite of soda. Of 73 other alkaloids treated in the same way not one gave similar reactions.

A Medical College at Cornell.—President ADAMS, in his recent annual report, suggests a medical department be added to Cornell University, located perhaps in New York City. We wonder if President ADAMS considers another medical college a crying need? Would it not be well to consolidate a half a dozen or more of the existing institutions to "fill the bill."

Leprosy.—Dr. M. SANDRUZKY, director of the Children's Hospital of Jerusalem, states that he has successfully treated a boy who had leprosy for two years. He also says that no one in that country believes in the contagiousness of this disease, and no case of contagion has been observed in that institution since 1867. There are about five hundred cases in Palestine.

The American Academy of Medicine is endeavoring to make as complete a list as possible of the Alumni of Literary Colleges, in the United States and Canada, who have received the degree of M. D. All recipients of both degrees, literary and medical, are requested to forward their names, at once, to Dr. R. J. DUNGLISON, Secretary, 814 N. 16th Street, Philadelphia, Pa.

Dr. Hammond's Sanitarium.—This enterprise of Prof. WM. A. HAMMOND, located at Washington, D. C., has in the way of success proved a surprise even to its author. Although opened only about a year since for the reception of patients afflicted with mental and nervous diseases, it is now occupied nearly to its full capacity, and additional buildings will be required at an early date.

The Tendency of the Times.—"Who is your family physician, Freddy?" asked Mrs. Hendricks of the Brown boy. "We ain't got none," said the boy. "Pa's a homœopath, ma's an allopath, sister Jane is a Christian scientist, grandma and grandpa buy all the patent medicines going, uncle James believes in massage, and brother Bill is a horse doctor.—*Judge.*

The College of Physicians and Surgeons of New York will hereafter emulate Harvard, and charge $200 as its annual tuition fee. This is as it should be, for there is no branch of teaching that is more arduous, or that requires more skill and study, than that devoted to medicine.

Treatment of Epilepsy by Cerebral Localization.—Prof. WM. A. HAMMOND is conducting a number of experiments in the treatment of

epilepsy by localizing the brain lesion, trephining, and paring the convolutions. The results of these experiments will be published in the near future.

Formyl-para-amido phenol-ether is another new synthetical remedy that will probably soon be met with in commerce. It is not an antipyretic, but is said to affect the spinal cord. If its claims are confirmed, it may prove useful in convulsive diseases.

No More Medical Colleges in Germany.—The Government has refused to allow any more medical colleges to be organized, having come to the conclusion that there are enough in that country. More complete methods of instruction are to be inaugurated.

A Grant to the International Medical Congress of 1890.—The Imperial Ministry of Germany has made a grant of 80,000 marks ($20,000) in aid of the Tenth International Medical Congress, to be held in Berlin next year.

Young Living Fœtus.—Dr. T. T. KIRK, of Pittsburg, Pa., reports a fœtus five months and ten days old. It gasped and cried when expelled, and on wrapping in cotton and feeding on sweetened water, lived twenty-two hours.

The Bicycle as a Cause of Spinal Disease.—"Show me a man who rides a velocipede or bicycle, and I'll show you a case of spinal complaint," says Dr. AGNEW.

British Medical Journal.—There are upwards of 140 writers on the editorial staff of this periodical.

Phthisis in France.—During the last eighty years 8,000,000 people have died of phthisis in this country.

Female Practitioners in Russia are forbidden to attend adults of the male sex.

Therapeutic Brevities.

Erythroxylon Coca.—Dr. Joseph Adolphus, of Atlanta, Ga., writes the Am. Med. Jour. as follows: Coca leaves, in the form of fluid extract, is often a remedy of very remarkable therapeutical properties, and fills a very important place in the treatment of many diseases resulting from some impairment of the nervous system, especially of women. It is a stimulant pure and simple. The first notice I saw of its action was in a short paper in the Edinburgh Medical Journal by Sir Robert Christman, who was at that time the great authority in the Scotch school of medicine on therapeutic and forensic medicine.

The salient point in the paper was, the striking endurance against fatigue coca conferred on the physical power of the organism, when the leaves were chewed in moderate quantity. Prof. Christman avowed he was able to endure severe physical exercise under it, and perform long journeys on foot with ease and comfort, though an old man. In a few years after, I saw another account of the use of the medicine, by a German writer, extolling its power to fortify the system to endure severe mental labor.

One day, while reading, my eye fell on this line: "O, that tired feeling!" It was the plaintive outburst of a poor overworked woman sinking under the weight of the physical burden that had fastened itself on her organism.

The idea of coca struck me. The medicament was a nervous stimulant and a nerve tonic, and if used carefully with other appropriate remedies, might do a world of good in many cases.

The first case I used it in was a child, a girl of 16 years old, going through a siege of typho-malarial fever. Her constant complaint was feeling so very tired, so much aching in her bones, not much rest, no relief. I caught up coca; prescribed Parke, Davis & Co.'s Fl. Ext. every two hours—nothing else. Now here is a picture: this girl was at times flighty, pulse 130, small, weak, very compressible, and the heart sound was quite soft, giving the idea of feebleness; besides these was the feeling of constantly being tired. In 48 hours the feeling of being tired was removed; in 24 hours the pulse strengthened and was firmer, and the first sound of the heart became more pronounced; the mind was clear; yet the temperature was but ½ or ¾ of a degree lower, and the decline was at the time of the 24 hours when it has been the highest. This was an object lesson to me. I told others of it, but no one cared, because everyone had become disgusted with the name of coca when its praises were being sung by thousands of doctors over the length and breadth of the land for all diseases. One good man told me not to say coca to him if I wished to retain his good opinion.

A while after, I was attending a woman who had a baby six weeks back, and was making a very poor shift in the way of getting over her troubles. Her complaint was constant backache and feeling tired, bearing down weight in hips and loins; said she felt as if her body was dropping in two across the small of her back. Besides being anæmic and having a nasty leucorrhœa, her "heart fluttered and felt like it had stopped for a moment;" then she had "sinking spells" that made her feel "like death." The uterus was large and heavy, anteverted, neck long and hard, tender to touch; pain over small of the back of exquisite sensitiveness to pressure; and, worst of all, no desire or relish for food. I gave her coca. The first bad feeling to move was the everlastingly being tired; gradually she felt better; her night's sleep did good, so as to enable her to feel rested in the morning. The next week her back-ache fell off very considerably, and with it the leucorrhœa. Here is a point I wish to note. In many of these cases the back ache and tired feeling are present even after the leucorrhœa is bettered, and its return is only a matter of short time under the same stress of every day routine of life.

But, in point of fact, the heart was the first to lose its fluttering feeling, and the painful source of impending danger was among the first symptoms to relax. This woman made a good recovery in two months under coca. Often she had severe exacerbations of her bad symp-

toms, and was tempted to increase the dose, against which I gave her repeated caution.

About two months ago, a gentleman, who has to walk much and do a great deal of severe mental labor, told me he was breaking down—feeling tired in the morning, as much so as at night; his heart troubled him, pangs such as slight shafts of angina cause; had thumping of the organ; loss of appetite and digestion; and his virile powers considerably weakened. He is about fifty-three years old, has been temperate in life's enjoyments and a hard worker, bodily and mentally. Him I also gave coca. After a week he told me his heart felt better and his endurance a trifle improved; but the best sign that he was being bettered was, he felt rested in the morning and was able to go to his daily labors in a spirit of cheerfulness and with confidence in himself. Slowly appetite and health improved, and digestion grew more vigorous, but his virile powers are quite feeble yet. I advised him to let this part of his manhood entirely alone to a protracted rest, and if the infinity of the universe has done with his race, to be satisfied and gratified for the other, and, as I believe, better, favors granted.

To conclude, let me say, coca, while a stimulant to the sympathetic system, is a dangerous medicament, a two-edged sword, but as good as any good thing well used and not abused. One must be circumspect with it, and give an honest trial without expecting too much of it.

Cocaine in Vomiting.—M. W. Everson, M.D., in College and Clinical Record, calls attention to the special merit of cocaine in nausea, particularly in that of pregnancy, gastric ulcer and cancer.

"In vomiting of pregnancy ½ to ¼ grain three times daily will generally be sufficient. A formula which has proved useful in my hands in the latter affection is the following:

℞ Cocaine hydrochlorat, gr. ½,
Ext. nucis vomicæ, gr. ⅛,
Pulv. assafœtidæ, gr. ij.
M. Fiat. capsula j.
Sig. Three times a day, a half-hour before eating.

"Cocaine will be found of value where other remedies fail. I have found it successful in those cases of vomiting of pregnancy in which the so called specifics, oxalate of cerium, etc., have failed. In gastric cancer it will often arrest the vomiting for days at a time, thus giving the stomach rest and allowing more perfect attempts at nutrition. The formula I have used in a number of cases of cancer is the following:

℞ Cocaine hydrochlorat., gr. ½–¾,
Thymol, gr. ½–⅔.
M. Ft. pil. j.
Sig. Three times daily.

"In every case in which it was used the vomiting and pain were noticeably lessened, and the patient was made vastly more comfortable.

"But regardless of the above special diseases, cocaine is of use in vomiting from any cause; and there are many cases attended by vomiting met with by the practitioner of medicine for which no cause can be immediately assigned. In these cases its action is manifested at once, and after the first dose the vomiting usually ceases. The most desirable way to administer cocaine is in pill form, but it may be given in solution when a proper vehicle is added.

"Cocaine can be given in suitable doses without fear of depression; indeed, it can be given to a double advantage where a weak circulation exists, as it is to some extent a circulatory stimulant. It is also of use in vomiting of entero-colitis of children, a disease which is so frequent in our large cities during the heated term, and in which vomiting is so prominent a symptom. In the latter affection it is best given in combination with bismuth. To a child two years of age I give ¼ grain of the hydrochlorate at a dose, and repeat it every few hours, *pro re nata*."—*Pharm. Record.*

Eczema.—Dr. Unna strongly recommends, in the treatment of seborrhœal eczema, the application of linen cloths soaked in solution of resorcin. (Resorcin and glycerin, of each, 10; alcohol, 180; 1 part of the mixture to be diluted with 4 parts of water.) A thin layer of cotton wadding, soaked in the solution, is applied, and covered with waterproof material. Dr. Mackintosh gives the following as an ointment which, in most cases, pretty nearly approaches the character of a specific:

Bismuthi subnitratis, ʒ iv.
Zinci oxidi, ʒ j.
Acidi carbolici liquidi, ʒ ss.
Vaselini albi, ʒ ij.
Ft. ung.

Or,

Bismuthi subnitratis. ʒ ij.
Zinci oxidi, ʒ ss.
Glycerini (Price's), ʒ iss.
Acidi carbolici liquidi, ♏xx.
Vaselini albi, ʒ vj.
Ft. ung.

The latter ointment mixes into a beautiful enamel-like cream, which is cooling, and acts as a balm to the irritable skin. When constant tingling and irritation disturb the patient's rest at night, the following lotion is said to be invaluable:

Bismuthi subnitratis, ʒ j.
Glycerini (Price's), ʒ iv.
Acidi carbolici liquidi, ♏xij.
Aquæ rosæ, ad ℥ j.

Sig.: Shake up, and apply with a camel's-hair brush.

During the day, when business has to be attended to, and the ointment cannot be applied, a powder will be found useful:

Cimolite
Bismuthi subnitratis } āā equal parts.
Zinci oxidi
Fiat pulvis.

Gelsemium in Convulsions.—Convulsions in children commonly arise from indiscretions in diet, but whatever the cause, it must be removed before the nervous system, can be permanently quieted. In the absence of a known cause, and when it is irremedial either from the severity of the convulsion or the nature of the cause, gelsemium is always an efficient

remedy. Indeed it may be adopted with safety as a routine practice, and will at least control the spasm. The dose will be governed by the case under treatment, but must be sufficiently large to bring the patient fully under the influence of the drug. In a child two years old I prescribe:

℞ Liquid gelsemii normal (P., D. & Co.'s), ♏iv.
Aquæ puræ, ʒ ij.
M. Sig.—One teaspoonful as directed.

It is a good plan to give the second dose in twenty minutes after the first, and then at intervals of one-half, one, two, or three hours, as required. The action is more prompt than the bromides or chloral, and will never give rise to nausea and vomiting. In convulsions resulting from inflammatory diseases of the brain, it is as nearly specific as opium in peritonitis. The spasm is not only controlled but also the inflammatory brain disease.—*Therapeutic Analyst.*

Sexual Perversion Cured by Hypnotism.—"A young man 34 years of age, a doctor of philosophy, of unusually high education, with a special love for the fine arts, and physically the peer of any man, made application to Prof. von Krafft-Ebing for treatment by hypnotic suggestion. He hoped in this way to be relieved of a perverted sexual impulse. Women had no attraction for him, and, although he was engaged to be married, he feared he should never be potent in his connubial relations. There was some hereditary taint in his family. While, however, erections were easily excited by the presence of members of his own sex, he never had the desire to have carnal relations with them. It was an impulse only, but without the imperative idea of acting upon it. He was hypnotized according to the Bernheim method, and repeated the following suggestion after the operator: 'I feel that from now on I am sexually indifferent to men, that men are to me sexually no more than women.' Five days later he reappeared, joyously stating that he had been freed from his disorder and felt a new desire for life. For a week following he was hypnotized daily, and made to repeat the same formula. He was then pronounced well. No attempt was made to inculcate the normal desire for the opposite sex into his mind." Doubtless the Professor thought he would be better off without it."—*Deutsche Med. Zeitung.*

Gurjun Oil in Leprosy.—Brigade-Surgeon J. W. S. Hodder, M. B., writes: As the subject of leprosy is at present attracting so much attention, I should like to call attention to the treatment by gurjun oil, which I had an opportunity of seeing carried out in a proper way at the Andaman Islands some years ago, by Surgeon-Major Dougall, I. M. S., who was the first to suggest and devise a proper line of treatment by that means. As this officer is now dead, his name should not be forgotten.

In the Army Medical Department Report for 1875, in a medico-topographical report by myself published therein, I gave a sketch of how the treatment is to be carried out. I saw photographs of my patients taken before treatment, and the patients themselves during and after treatment, and can bear testimony as to their great improvement, notwithstanding a bad diet. The patients were convicts sent to the Andamans to undergo penal servitude.—*Brit. Med. Jnl.*, Oct. 12, '89.

Menthol in Auditory Furuncles.—Cholewa recommends for the treatment of furunculosis of the external meatus, a twenty-per-cent. solution of oil of menthol, introduced into the meatus by means of firmly twisted rolls of cotton, which by their size exert a gentle pressure upon the inflamed surface. The action of the remedy is not only antiphlogistic and analgesic, but, above all, antibacteric. The staphylococcus aureus, which according to the investigations of Garré and others causes the formation of furunculæ, does not develop in nutritive substance which has been slightly impregnated with solution of menthol oil (0.8 menthol: 8.0 aqua). As soon as the coccus comes in direct contact with the solution, it dies quickly; even the vapor of menthol is sufficient.—*Centralblat f. d. Med. Wissen.*, Oct.

Value of Electricity in Gynæcology.—Prof. W. T. Playfair, M. D., F. R. C. P. concludes:

1. The continuous current is capable of effecting much good in certain selected cases, otherwise little amenable to treatment; and its introduction is, therefore, a distinct gain to gynæcology.

2. It is an agent of considerable power, and therefore, if rashly and injudiciously used, it is also capable of doing much harm.

3. It involves the use of a costly plant, and it is troublesome and tedious to work.

4. Since the proper selection of cases requires, moreover, much special knowledge and great care in the application of the remedy, it is never likely to come into very general use.

Combination of Cocaine and Iodoform.—The Gazette de Gynæcology says: "In order to prevent the pain which sometimes follows the application of iodoform to wounded surfaces, the following combination may be used:

℞ Very finely powdered iodoform, 10 parts.
Pure cocaine, 0.3 parts.
Mix carefully and add:
Menthol, 0.4 parts.
French tincture of lavender, 20 parts.
For external use.

To Cure a Black Eye.—There is nothing to compare with the tincture or a strong infusion of capsicum annuum* mixed with an equal bulk of mucilage of gum arabic, and with the addition of a few drops of glycerin. This should be painted all over the surface with a camel's hair pencil and allowed to dry on, a second or third coating being applied as soon as the first is dry. If done as soon as the injury is inflicted, this treatment will invariably prevent the blackening of the bruised tissue. The same remedy has no equal in rheumatic stiff neck.—(*St. Louis Polyclinic*) *Med. Record.*

* C. fastigiatum.—Ed.

Viburnum Prunifolium in Labor-Pains.—Dr. R. L. Hinton, of Prescott, Arkansas, uses the tincture of black haw to quiet false labor-pains. After an experience of nearly thirty years, he positively affirms that it will invariably control them. When called to a case of labor, he orders one teaspoonful of the tincture every three or four hours until the pains have ceased or the labor is completed. This method he thinks reduces the severity of the pains, prevents after-pains, and rapidly enables him to determine whether the pains are true or false.—*Ther. Gaz.*

For Tapeworm.—Dr. Numa Canopi recommends the following line of treatment for the removal of tapeworm: In the evening a dose of castor oil. The following morning 8 grammes of thymol divided into 12 doses are to be taken, a dose every quarter of an hour; and after the last dose of thymol, a dose (20 grm.) of castor oil. A few minutes after the last dose of castor oil is taken the tapeworm is expelled entire.—*Medical Press.*

Medical Progress.

Rheumatism in Infancy and Childhood.—In a paper read before the Medical Society of the County of New York, Prof. Abram Jacobi called attention to the frequency with which rheumatism occurs in children and infants. Valvular affections of the left side of the heart are secondary to rheumatism, and not scarlatina. Many cases of rheumatism in children do not develop cardiac symptoms; but, on the other hand, endocarditis is sometimes the first symptom of rheumatism, even in mild cases; the two facts contrast strongly, and must always be borne in mind. The slightest symptom of chorea minor should lead to an examination of both heart and joints. Chorea minor, due to a rheumatic affection of the spinal membrane, may be not the final, but the earliest symptom of rheumatism and rheumatic endocarditis. "Dentition," "malaria," "worms," or "colds," are too often the diagnosis given in cases of rheumatism in children. This is partly because an idea of the rare occurrence of the disease in children is rooted in the minds of many practitioners, and partly because diagnosis is quite difficult. Fever in small children is a common symptom, but every disturbance in a child is apt to raise the temperature. The elevation of temperature in rheumatism may be slight and irregular. Swelling of the joints is apt to be trifling in amount, and easily overlooked; and the pain (spontaneous or on pressure) may be much less severe than pains from fatigue, rachitis, syphilis, colic, or otitis. In every doubtful case, where a child shows signs of discomfort, safety requires that the heart and joints should be examined. Diagnosis is especially hard if only a single joint, such as the hip or knee, is affected. Other joints may become involved subsequently. But too often such a condition in a young child, requiring really careful and repeated examinations to determine correctly, is almost disregarded by the physician, and the mother is assured that the child's uneasiness is caused by "growing pains." This point cannot be too strongly emphasized that, in a large majority of cases the so-called "growing pains" indicate the presence of rheumatism and the liability to irreparable heart-injuries.

As regards treatment, a change of residence from localities in which rheumatism is apparently endemic is desirable. Alkalies are often indicated. Cold and moist weather, damp houses, etc., frequently bring on rheumatism in the children of rheumatic parents, and in such children treatment must be mainly preventitive. The systematic use of cold water will modify, and sometimes entirely remove, such a tendency. A cold wash, sponge, wet sheet, shower-bath, or both (according to the child's strength or power of reaction), should be given daily. If in any case this is followed by chilliness, then tepid water containing alcohol may be used at first. Warm clothing should always be worn for the remainder of the day after any cold water application. Among the various local measures to be mentioned for the relief of swollen and painful joints, especial attention should be called to swathing of the parts in cotton and flannel, and to the application twice daily of a solution of iodoform in collodion, brushed copiously over the swollen surface. For endocarditis, absolute rest, cold applications over the heart, and salicylate of sodium are to be recommended.

Gonorrhœal articular rheumatism, nodulated rheumatism (*i. e*, the appearance of small neoplasms on tendinous and periosteal structures), and peliosis rheumatica (a localized form of purpura), are occasionally met with, but require no special treatment in children. In muscular rheumatism, also, the best preventive treatment, when a tendency to the affection has appeared, is the regular and systematic use of cold water. In certain cases the injection of a small dose of morphine, the use of the interrupted current, the administration of the salicylates, analgesin, acetanilid, or phenacetin, and a few subcutaneous doses of one twelfth of a grain of pilocarpine, may give relief. Where a real inflammation is present in a muscle, warm baths, a mild, continued current, and small doses of dichloride of mercury will aid in recovery.—*Kansas City Medical Index.*

Glandular Fever.—Under this title in a recent number of the "Centralblatt fur Klinische Medicin," Dr. E. Pfeiffer describes an acute febrile condition mainly characterized by a swollen state of the lymphatic glands—an affection of frequent occurrence. According to his observations, the temperature rises to about 103° F., the tongue is slightly coated, the tonsils are a little reddened, and there is chilliness with fever, pain in the limbs, great uneasiness, loss of appetite, and vomiting. All the internal organs appear normal, but the lymphatic glands of the sterno-cleido-mastoid and occipital regions are swollen and painful. In moderate cases the fever ceases on the second day, and the glandular swelling subsides gradually. The affection may, however, be prolonged by recrudescences, the implication of the sterno-cleido-mastoid glands passing from one side of the neck to the other, and the lymphatic glands of the whole body may become involved. In such cases the throat symptoms are more pronounced, with slight cough,

dysphagia, and hepatic and splenic pain on pressure, on the third or fourth day. Another form of glandular fever is that which accompanies swelling of the intestinal glands; the liver and spleen are both tender, and there is diarrhœa with moderate fever, loss of flesh, slight albuminuria and ascites.

Pfeiffer thinks that the course of the disease and its occurrence in localized epidemics, confined to a house or a family, show it to be infectious. O. Heubner is represented as having made similar observations, except that he has not noticed the implication of the liver and spleen, or the occurrence of the disease in the epidemic form. Pfeiffer asks whether the affection is idiopathic, symptomatic, or a mere aggregation of symptoms of various morbid processes. Heubner has also taken the glandular condition as proceeding from infection of a neighboring mucous membrane, and this view is more in harmony than Pfeiffer's with what has previously been held, although the tendency to make glandular swelling an idiopathic disease has been so marked that in the first half of the century Velpeau, among others, protested against it. "Swollen and inflamed," said Velpeau, "the glands may remain for a long time the only sign of disease after the part originally diseased has returned to its normal condition; if there have been no appreciable changes, no signs of lymphangitis, in the course of the intermediate vessels, the patients and even their doctors readily overlook the cause of the adenitis and content themselves with studying the effect."

Sometimes the effect is disproportionately severe, often probably on account of the patient's reduced powers of resistance. Such was the case in a family to which the present writer was once called. Two of the children were affected in a manner absolutely the same as that described by Pfeifer. The swelling of the sterno cleido-mastoid glands was very great, especially on the right side. The tonsils were so slightly reddened that attention was at once called to the disproportion between cause and effect. On inquiry, it was found that the mother, owing to dread of overfeeding her children, had so systematically underfed them that it required but a slight cold to make them very sick. Cod-liver oil and iodide of iron gradually got the upper hand of what might naturally be considered a cultivated weakness —a weakness common enough in poorly nourished children, whether from inherited tendencies or from improper feeding.

In his case of the second class of glandular fever—those in which the intestinal glands were involved—Pfeiffer used calomel, cold compresses, a strengthening diet, quinine, wine, and iron, and it took at least three months for the patients to be completely restored to health.—*N. Y. Med. Jour.*

Electric Shock.—It is not very often that a man who accidentally places himself in the circuit of a powerful electric current survives to relate his sensations. Mr. William Sharpe, the manager of an Electric Light and Motor Company at Oakland, California, however, recently escaped, owing to a combination of happy accidents, and his experiences will be read with interest. He was engaged in measuring the resistance of the electric light circuits. All the terminals were secured to binding posts on a switch board, on which the electric motor circuit was also connected. The latter was fed by two Weisse dynamos, coupled in series, the maximum voltage of each being 750 volts. At the time of the accident these were supplying about 40-horse power, representing a current of 20 ampères. Thinking that the contacts at the binding posts were not perfect, Mr. Sharpe looked around for something more suitable, and selected a switch line that was hanging up. One end of this was, without his knowledge, connected to the end of a wire forming a loop running a 12-horse power motor, while the other end was fastened in a binding post on the switch-board. Being unaware that this motor was switched into the regular motor circuit, he proceeded to slack up the set screw, holding the wires together with a screw driver. As the wires did not separate, he took hold of one in each hand and pulled them apart, thus placing himself directly in the circuit through which the whole force of the current had to pass. He at once realized that he had made a terrible mistake, and graphically describes his feelings:—"My hands were paralyzed, my arms were as stiff as bars of iron, and the cords stood out in large bunches. My head was turned round in the direction of the current, (towards the right shoulder, the current entering by the left hand and passing out through the right), my eyes bulged with burning pressure and glazed over; then I lost my senses and fell to the floor."

The fall happily pulled one of the wires out of his hand, and so broke the circuit. He at once recovered so far that he began to attempt to re couple the wires, but was stopped. He was, however, sufficiently collected to give the necessary directions for opening the circuit. The time of contact was not less than five nor more than eight seconds. There was no pain to speak of, not more than would be felt from a strong Galvanic battery. His hands and fingers were burnt, but, owing to the fact that they were moist, and that he had a firm hold on the wires, the burns were slight. The shock to the nervous system was very severe, and two months later the effects were still evident. The voltage in the circuit, measured the day of the accident, and again the following day at the same time, was between 1,400 and 1,440 volts. Owing to the increased resistance of the interposed body, it is thought that the voltage of the dynamos was probably raised to their utmost, or 1,600 volts. It seems a marvel that he was not instantly killed. The explanation offered is that the current from the Weisse dynamo is practically continuous, and there is a complete absence of the "kick" or alternation that makes a "death current." In the Weisse dynamo there are eighty sections in the armature, in the Brush eight sections, and in the Thomson Houston only three. All these currents are interrupted, but in the Wesse the breaks follow each other so closely (say 80 × 1,200 a minute) that they are not felt in the current.—*Occidental Medical Times*

Digestibility of Boiled Milk.—It is now very generally recognized, both by medical men and by the more highly educated section of the community, that it is a wise precaution to boil both water and milk before using them

as beverages, and the practice is becoming very common. The growth of pathogenic organisms in these fluids, especially in milk, is often very rapid, and thus diseases may be transmitted from one place to another. The temperature of boiling water puts an end to the life of the microbes, and also to the danger of infection. Another reason why boiled milk is so much used, especially in infant feeding, is that it is supposed to be more easily digestible than fresh milk. If, however, we can draw correct deductions from dogs to babies, it would now appear that this belief in the superior digestibility of boiled milk is founded on error. Dr. Randnitz, of Prague, has recently published, in Hoppe-Seyler's Zeitschrift für Physiologische Chemie, certain very striking experiments on this subject. He admits what anyone may confirm for himself, that milk that has been boiled does not, on cooling and the subsequent addition of rennet, form a large coherent clot as does fresh milk; but a flocculent precipitate of casein is produced instead. He shows, however, by analysis of the milk itself, and of the urine and fæces, that much less nitrogenous material is absorbed from milk that has been boiled than from the same milk when fresh. The digestibility of fat is apparently unaltered by boiling. The following figures, however, illustrate the fact just alluded to as to the difference of digestibility of the proteid materials: In three days, 15.6 grammes of nitrogen were given in the form of fresh milk; of this quantity, 13.3 per cent. was found in the fæces; the nitrogen of the urine accounted for 77.3 per cent., so that 9.4 per cent. was retained in store by the growing animal. The animal was next fed on boiled milk; and 10.4 grammes of nitrogen was given in that form in two days; 18.6 per cent. of this was found in the fæces, 75.7 in the urine; so that only 5.7 per cent. was assimilated. The belief in the superior digestibility of boiled milk is, however, so widespread, that we should like to hear of the confirmation of the above remarkable results before we recommend mothers to leave off what is, from other points of view, the very praiseworthy custom of boiling the milk they give to their children. *British Medical Journal*, Oct. 19.

The Advantages of Insensibility.—An English writer has recently suggested that we are wont to give excessive praise to the faculty of sensibility, while we depreciate its opposite, or the want of it, insensibility. It is clear, he maintains, that almost every shade of insensibility has a side of advantage as well as of disadvantage. The world forgets how very much tender sensibility often interferes with the calm judgment necessary for right action and cool presence of mind which is essential to effective execution. What shall we say of the surgeon or the nurse who is so sensitive that the sight of suffering disturbs the judgment and makes the hand tremble when a steady hand is most essential to efficient work. It is obvious that, for every purpose of alleviating pain itself, a certain measure of insensibility to sympathetic pain is in the highest degree advantageous, if not necessary. The best nurses are the calmest nurses, and they are very seldom the ones who suffer most at the sight of their patients' suffering; and "one of the great advantages which patients feel on entering a hospital is, that their sufferings do not come back reflected from the faces of those around them; that the sympathy they excite is only a mild sympathy, and not one which heightens their own pain. Hardly a sufferer exists who is not the better instead of the worse for seeing that those around him are not overwhelmed by his sufferings—that, so far as he can go out of himself at all, he may get a little relief by entering into the less over-shadowed lines around him, and tasting indirectly another's enjoyments."—*Pop. Science Monthly.*

Creolin Injections in Dysentery.—Dr N. P. Ossovsky, of Tobolsk, in Siberia, communicates to the Vrach, an account of a series of trials he has made of creolin injections in dysentery. The plan adopted was to place the patient on all fours, so as to relax as far as possible the abdominal pressure, and then, by means of a long, soft, gutta-percha tube passed up the rectum, to inject slowly a one-half-per-cent. solution, or rather emulsion, of créolin, allowing this to remain as long as possible, which was, in most cases, from five minutes to half an hour, but occasionally several hours. The injection was repeated twice, and sometimes three times, a day, and in the great majority of instances very soon produced a marked improvement in the patient's condition, the tenesmus, blood, and number of stools becoming less or disappearing altogether. In some cases the dysentery was arrested, but a catarrhal condition was left. Here other treatment had to be resorted to, as injections of acetate of lead and tannic acid, together with cinchona and sulphate of soda. Creolin injections were in no case found to produce any undesirable symptoms, though they were employed in children under a year old, one of whom was suffering from cholerina, though they were used by Dr. Kolokoloff, a colleague of Dr. Ossovski's, of a strength double as great as that mentioned above.—*Kansas Medical Journal*, September, 1889.

Uterine Tuberculosis.—"An interesting case of primary tubercular disease of the Fallopian tubes has occurred in Professor Lebedeff's wards. The patient, who was the widow of a man who had died of phthisis, was of a cachectic appearance and suffered from amenorrhœa. On examination, a firm, nodulated, intra-abdominal tumor was made out, situate in the space of Douglas. An attempt was made to remove the tumor, but had to be given up, as disseminated miliary tubercle was found affecting the peritoneum. The intestines and the uterine appendages, too, were all matted together. Six weeks after the attempted operation the patient died with symptoms of general tuberculosis. At the post-mortem examination miliary tuberculosis was found affecting the peritoneum, the lungs, the pleuræ, the colon, and the mucous membrane of the uterus. Both the Fallopian tubes were dilated and filled with pus, the epithelium in parts being absent. The intensity of the destructive process was greatest in the tubes, and became less marked toward the periphery. In sections, tubercle bacilli were found; there was no tuberculosis, however, in the ovaries, and only the mucous membrane of the uterus was affected."—*Lancet.*

The Medical Age.

Vol. VII. DETROIT, DEC. 10, 1889. No. 23.

Original Articles.

DR. PEAN'S HÆMOSTATIC FORCEPS.*

WITH CLINICAL REPORT OF CASES.

BY DR. KATE C. HURD, PARIS, FRANCE.

To the development of three grand discoveries or inventions is due the remarkable progress of surgery during the past fifty years.

To antisepsis, anæsthetics, and the hæmostatic forceps do we owe a debt of gratitude, for to-day many a life is saved and many a sufferer made well by operations once considered fatal, and now made simple by these means.

It was in 1865 that LISTER in England led by the investigations of M. PASTEUR on the micro-organisms of the air, commenced his researches which have influenced the whole surgical world in regard to antisepsis, until at the present time, with a knowledge of what is implied in the term "thorough cleanliness," the most operations in the deepest cavities are undertaken with no fear of a septic fever resulting.

It was in 1844 that our own Dr. WELLS, of Boston, demonstrated the anæsthetic properties of nitrous oxide, and in 1846 that Drs. JACKSON, MORTON, and WARREN, removed a large tumor under *ether*. One year later Dr. Simpson, in Edinburgh, read a paper before the Medico-Surgical Society, in which he gave *chloroform* the first place in the ranks of anæsthetics.

Amyline and various other anæsthetics have been clinically tested; among them one of the more recent is *methyline*.

This substance, in composition so very like that of chloroform, and exceedingly volatile, has been abandoned like many others after it had been the cause of one or two deaths.

Chloride of methyline was employed by several surgeons for a time, and then *bichloride of methyl* which is now used by Profs. LEFORT and SIR SPENCER WELLS, in London, and which they have employed for several years with most satisfactory results.

The ACE mixture with us has been generally abandoned as unsafe, and to-day we find the old chloroform and ether giving the most satisfactory results. In many cases the hypodermatic injections of morphine preceding the anæsthetization is of great value; often in cases where ether is given to a patient whose lungs are in any degree enfeebled, a hypodermatic injection of atropine a few moments before the ether is given often does valuable service as a respirato-accelerator.

Of anæsthesia by hypnotism there is little to be said; it is a well-known fact that anæsthesia can be produced by hypnotism, and many trials have been given it in relation to surgical operations with results varying according to the patient's susceptibility.

To a French surgeon is due the honor of having invented the hæmostatic forceps.

If to-day the most difficult, the longest and most trying, and, above all, the most hæmorrhagic operations can be performed with impunity, it is because the operator knows well the value and use of the Péan Hæmostatic forceps, and, during the operation, has them in all sizes and shapes perfectly aseptic at his side.

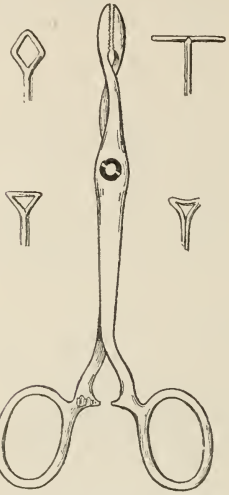
It is true that the Thermo-Cautery demands great respect for its frequent efficiency, but there are many cases in which the cautery cannot be used; it may be that it cannot penetrate to the bleeding vessel without injuring other tissues, it may be fatal for the operator to stop in his work long enough to apply it; a good assistant is required to manage it, and even then there are often dangerous delays, and sometimes, even though the temperature is neither too low nor yet too high, the vessel continues to bleed.

And now, through the Efforts of Dr. PEAN, in Paris, the old ligature which often required much time, or was well nigh impossible to make, is superseded by the hæmostatic forceps which are made in a great variety of shapes and sizes, suitable to all the needs of any operation; and there is no reason why the most furious hæmorrhage should fail to be controlled, provided the proper forceps are well adjusted.

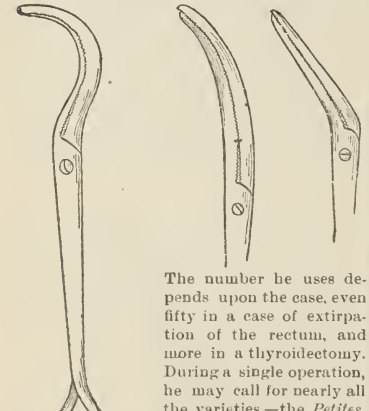
The Péan forceps of to-day is the Péan forceps of 1867, modified by him as often as the requirements of the case have demanded, until there are forceps of all curves and angles, of all lengths and fenestræ and strengths, to reach the most distant regions, or to grasp the most delicate and fragile of superficial vessels of any organ or region; they are always firm, always easy to open or close, and may be made thoroughly aseptic by disarticulation of the male and female blade.

* Cases witnessed at Dr. Pean's surgical clinic.

In the employment of the hæmostatic forceps, Dr. PEAN, himself, is a veritable artist.

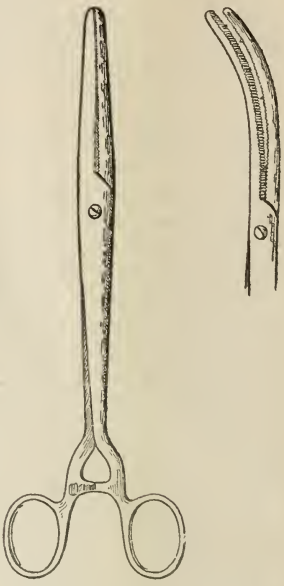


PEAN'S HÆMOSTATIC FORCEPS—SHORT AND FENESTRATED.



PEAN'S HÆMOSTATIC FORCEPS—CURVED AND BENT, WITH THE OLD ARTICLLATION.

The number he uses depends upon the case, even fifty in a case of extirpation of the rectum, and more in a thyroidectomy. During a single operation, he may call for nearly all the varieties,—the *Petites*, *Moyennes*, *longuettes*, fenestrated, dentated, blunt pointed, pediculate, long-curve, long straight, right-angled, left-angled, curved on the flat, or on the round, and (See Figs.) they are always ready, perfectly plated, and perfectly bright and clean, having always been passed through the flame of an alcohol lamp before and after any operation.



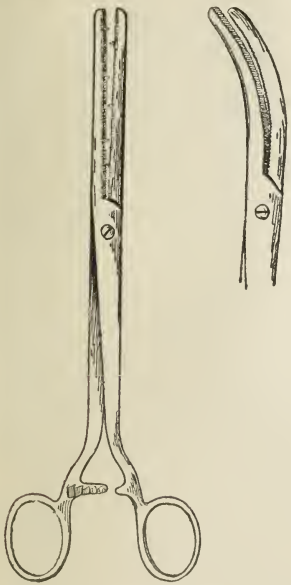
PEAN'S HÆMOSTATIC FORCEPS—LONG-STRAIGHT AND OLD MODE OF ARTICULATION.

REPORT OF TWO CASES OF VAGINAL HYSTERECTOMY, PERFORMED BY D. PEAN, AT MAISON, SANTE, OCT., 1889, PARIS.

Case I.—Mrs. X., æt. 50 years, had suffered many years with ovarian pains, and since the menopause, with frequent uterine colic, and occasional hæmorrhage. Electricity and all the ordinary palliative treatments had caused no alleviation of the pain. On bi manual examination, connected with the uterus, there was felt a large tumor subperitoneal, on the anterior wall, and another the size of an apple in the posterior cul-de-sac. There was metritis and endometritis, and a great tenderness on pressure in the regions of the annexa.

Vaginal hysterectomy being the simplest radical cure, the uterus and vagina were thoroughly douched, the hair shaved from the pubes, and the whole region again washed, four retractors inserted into the vagina, the uterus drawn down with strong tenacula, and again given an intra-uterine bichloride irriga-

tion, and then the entire cervix was amputated just below the circular artery.



PEAN'S HÆMOSTATIC FORCEPS—LONG-CURVED AND STRAIGHT, DENTATED.

Two vertical incisions were made on either side of the uterus, extending upward an inch and a half, forming an anterior and posterior lip of the body. This portion was then cut and torn away from the vagina; again anterior and posterior cuts were made, and these new lips drawn down as far as possible, revealing five small sub-mucous fibroids which were easily enucleated; after more denuding and separating, and the use of thirty or more hæmostatic forceps, the posterior tumor was exposed and peeled out with the posterior wall of the uterus. This exposed the intestines through a small opening in the posterior vault of the vagina, which was quickly closed with forceps which were to remain for several hours. The denuding was then commenced on the anterior portion. This gave more trouble from its more inconvenient position, the larger size of the tumor, and numerous peritoneal adhesions, but after very careful work, and the use of the forceps which entirely controlled the hæmorrhage, the anterior portion of the uterus, with its tumor the size of an orange, was removed, and with it a small portion of the right Fallopian tube. Several long forceps were applied to the vaginal vault, a douche given, the patient placed in the dorsal position, iodoform in abundance powdered into the vagina, which contained no less than twenty forceps of various lengths, and among these sponges filled with iodoform and tied by long strings, were packed, the whole to be left for twelve hours.

Uterus fibro-cystic, two large fibroids attached to its anterior and posterior walls. One tube, which was partly removed, was degenerated and cystic.

Patient made a good recovery.

CASE 2. The same operation was performed in the case of a young woman who had suffered for two years, despite all treatment, with incessant ovarian pains, caused by an ovaritis, resulting from a degenerated and inflamed uterus, which had also caused a peri and para metritis, and salpingitis.

The uterine cavity was little larger than normal.

This small uterus was very quickly and easily removed, in the same manner as in the former case, piece by piece—the vagina filled with the iodoform sponges packed around the forceps, and left *in situ* as before. In all probability, the patient will never have any trouble from the ovaries again, as the uterus and its incurable metritis was the whole cause (Dr. PEAN).

At the same hospital, at another clinic, two large cystic ovaries were removed, in the same manner as is usual, with almost no hæmorrhage, owing to the great number of forceps applied.

REPORT OF A CLINIC AT HOSPITAL ST. LOUIS, DR. PEAN, SURGEON, SATURDAY, OCT. 12.

There were four operations. The first was one of vaginal fistula; this was an ordinary operation. Case second was one of especial interest.

CASE 2.—*Tumor of pia mater, over ascending temporal convolution.*

Boy, æt. 14. History: While playing, six years ago, the child fell, striking his head and cutting therein a gash four inches long, extending from just above the ear nearly to the occipital vertex. He was taken immediately to the Children's Hospital, and kept until the wound healed. After returning to his home, he began to have occasional epileptiform attacks, localized on the left side. After a time the left leg began to be paralyzed, and the crises to increase in frequency and severity, until he was admitted to the St. Louis a few days previous to operation. It was thought that there might be an indentation in the skull, which, by its pressure on the brain, caused the symptoms, or, at least, that the contraction of the cicatrix might be the cause.

The child was operated on in the presence of

nearly a hundred doctors and students. An incision the length of the cicatrix was made in the scalp, the periosteum scraped away from the bone beneath the scar, and a piece of bone and of periosteum removed, ½ inch long by ¼ inch wide: this bone, situated just beneath the cicatrix, was markedly indented. A cyst of the pia mater was found just beneath, and an aneurism of the transverse sinus. The cyst was removed, an artery forceps applied to the dilated vessel, and left *in situ*. The wound was sewed with interrupted sutures of silk-worm gut, and dressings of iodoform. The artery forceps were to be removed in two hours. Patient removed semi-conscious.

CASE 3.—*Cyst of Thyroid Gland, size of a large orange.* A long incision in the median line was made, extending the length of tumor, and the edges of the wound being retracted revealed the tense bluish-white cyst membrane; this was punctured and a dark bloody and watery fluid drawn off, containing many pieces of degenerated gland tissue. The sac and much of the thyroid body were dissected out. A great number of hæmostatic forceps were applied which thoroughly controlled the bleeding; these were left *in situ*, iodoform powdered on and gauze packed around, but the wound was left entirely open. Patient removed to the ward where in two hours the forceps were to be taken off and the wound stitched, if all signs of hæmorrhage had ceased.

CASE 4.—*Phosphorus Necrosis of Inferior Maxilla.* Patient a young girl who had worked for six months in a match factory. She had suffered with severe toothache and face-ache for two months, had been to various physicians and dentists who had failed to make the proper diagnosis, and no treatment having caused the slightest amelioration she was admitted to the St. Louis for operation.

The last two molar teeth were removed, the mucus membrane lifted away from the bone carefully, and six small pieces of the inferior maxilla removed, and all the small particles which bore the least sign of periosteal inflammation were also taken out. The hæmorrhage was perfectly controlled with the long and short curved forceps.

Dr. PEAU then lectured for several minutes on the importance of an early diagnosis in a case of phosphorus poisoning, and on the necessity of very thorough operation as the only radical cure.

NOTES ON MODERN THERAPEUTIC AGENTS.

BY F. E. STEWART, M. D., PH. G.*

Professor BARTHOLOW continued his interesting lectures on antiseptics, illustrated by vivesection experiments before the class. He spoke quite fully in relation to antipyrine, antifebrin, exalgin, resorcin, etc. His lecture was prefaced by the remark, "Some of these remedies are of high utility, some are worse than questionable; and, as for some of them, it would be far better for the profession if they never had been heard about." He spoke in scathing language concerning those German manufacturing houses, and also those American houses of a like ilk, who are using the medical profession as a cat's paw to draw their chestnuts out of the fire. The motive underlying the introduction of new remedies was simply to make money, and everything said is more or less colored to make the articles sell. This abuse, he thought, had gone about far enough.

This reminds me of a conversation I once had with the late W. J. J. WOODWARD, U. S. A., when he was in charge of the Army Medical Museum at Washington, in which he said, "STEWART, what we want above all things, is a *bubble-pricker*." Such an article would certainly be desirable. Pricking bubbles out of the reports concerning new remedies can only result in good to the valuable ones; and the sooner those proving all froth are cleaned out from our cumbersome list of drugs the better for all parties concerned.

In the effort to discover some cheaper substitute for quinine, a number of compounds have been discovered with peculiar powers. Like salicylic acid they primarily stimulate the heart's action and the respiration, larger doses depress both, lower the arterial tension, relax the vessels, produce profuse perspiration, and reduce the temperature in fever. They dilate the pupils, but they have no effect on the peripheral nerves either of motion or sensation. They have the power of removing pain. Some of them reduce temperature more than others: but their is a law, that for every action there is a corresponding reaction; so that these which reduce the temperature the more rapidly, and retain it at a low degree the longer, are the more dangerous.

The action of these drugs is on the vaso-motor centre in the medulla. While not affecting sensibility at first they finally do so in larger doses, mobility is affected before sensibility.

Antipyrine was introduced by Dr. KNORR. "This substance has been called antipyrine on account of its antipyretic properties. It is produced by the action of phenyl-hydrazin on acetic ether, and the subsequent methylation of the product. Its composition corresponds to the formula $C_{10}H_{12}N_2O$." It occurs in the form of a white crystalline powder, or in scales, and is readily soluble in water. It may be given in doses of from 5 grains to a dram. Larger doses are attended

* Demonstrator of Materia Medica and Pharmacy, Jefferson Medical College Philadelphia, Demonstrator of Phamacy, Woman's Medical College of Pennsylvania, etc.

with danger. In medicinal doses it causes a decided fall in temperature, lasting, sometimes, eight or ten hours. The pulse rate is diminished, and the patient perspires profusely. It reduces temperature by lessening oxidation, and by promoting perspiration.

The writer finds that, as a rule, the perspiration can be controlled in great measure by giving one drop of normal liquid belladonna with the dose of antipyrin. He employs it in five-grain doses once an hour for three hours, with a drop dose of the normal fluid belladonna, and finds the dose sufficient in the majority of cases of fever to reduce the temperature as far as it is safe to do so. He has seen nervous symptoms resulting from 30 grains in 24 hours, given in divided doses. Extreme irritability and restlessness is often produced by it.

Prof. BARTHOLOW says that in some cases more or less trembling occurs, while in others it may produce epileptic attacks. After the epileptic attacks, if the dose is sufficient, it effects motility and sensibility.

Antifebrin, or acetalaline, phenyl-acetamid ($C6\,H_5{-}NHC_2H_3O$), is another of the German patent medicines. It is a white, odorless, and crystalline powder, almost insoluble in water, but freely soluble in strong or diluted alcohol. It is said to be about four times as strong as antipyrin as an antipyritic. It is employed in much smaller doses than antipyrin. Four to fifteen grains may be given, inclosed in wafers, or dissolved in wine. The maximum dose is thirty-grains in twenty-four hours. It reduces the temperature by decreasing oxidation. It has a secondary effect of depression on the heart. During the time of the greatest depression in temperature is the greatest danger. When given in toxic doses, respiration ceases before the heart. Antifebrin is more dangerous than antipyrin, because its effects last longer. Physiologically, antipyrin is the pleasanter in its action. Great caution should be observed in giving it. Observe the state of your patient's circulation. Look out for a weak heart.

These drugs are both given to relieven pain, as well as to reduce temperature. Antipyrin is given hypodermically as well as by mouth. The dose is five grains. It is used in this way for the relief of pain in neuralgias, rheumatism, gout, etc. It has become the popular craze among so-called society ladies for mending of headaches due to late hours and dissipation. Taken to escape the natural consequences of their folly, it has done a vast amount of harm. The better way would be to remove the cause.

Resorcin [$C6\,H_4\,(HO)_2$] is obtained by fusing certain resins with a caustic alkali. It is usually prepared by fusing potassium benzoldisulphonate with caustic potassa, potassium sulphite and resorcin being the result of the action. It occurs in colorless prisms, of a sweetish acrid taste, and without odor. It is soluble in water, alcohol, ether, etc. It has been given as an antipyretic in doses of 5 gr. every two hours, or ʒ i, not repeated for several hours. It is no longer used to any extent internally, however. Taken in the mouth, it causes a very superficial eschar. Internally, it causes first a sensation of heat, afterward followed by profuse perspiration and languor; and when fever is present, it reduces the temperature, which rises again after a rigor lasting two or three hours. Toxic doses paralyze the motor tracts in the spinal cord. There is first trembling, followed by epileptiform convulsions. The heart's action is depressed, respiration is quickened and enfeebled, the pulse becomes either slower and weaker, or more rapid and weaker, and death results from failure of respiration.

Exalgin.—DR. DUJARDIN-BEAUMETZ has introduced a new drug as a competitor to antipyrine. It lessens pain almost like opium. It acts on the nerves at their origin, not on their peripheries. It has no action on the cerebrum like opium. It can be given hypodermically. Stops headache sooner than antipyrine. Dose, 2–5–10–20 grains—the last for fever.

Prof. BARTHOLOW also spoke of chinoline—a derivative obtained by the destructive distillation of quinine, or cinchonine, with potassium hydrate, but also formed from coal tar. It is a colorless, oily liquid, soluble in alcohol, ether, etc. It was discovered in the search for a process for making quinine artificially, and closely resembles that article, both chemically and physiologically. It is a powerful antipyretic, stronger in its action than many of the other new antipyretics, but, for every action there is a corresponding reaction, and the more powerful the effect the greater the corresponding danger. He also referred to *Kairine*, an artificial alkaloid formed from cinchona, and belonging to the phenol group of carbon compounds. It produces profuse sweating and vomiting, and a tendency to collapse. *Thallin* he spoke of as another powerful antipyretic in doses of 4 grains. It, too; he considered dangerous.

Saccharin, another coal-tar derivative. It is not soluble in water except to a limited extent, but readily dissolves readily in alcohol, ether, etc. It is said to be 300 times sweeter than sugar. A solution of 1 to 70,000 still tastes sweet. It is rapidly eliminated by the kidneys unchanged. Saccharin is an acid, and unites with bases to form salts. Its combination with sodium is sweeter than itself. When taken internally for some time it affects the nerve of taste, and becomes very disagreeable to patients. It is a valuable germicide. It has been said that saccharin has no systemic effect. This is not true, however, for it has the power of uniting with bases and forming salts in the blood, and thereby affecting the entire system.

For the treatment of intestinal indigestion, especially in children where its sweet taste is attractive, it is a valuable remedy. Sick-headache due to fermentation of food in the intestines can often be relieved by its use. In such cases saccharin is a remedy of great utility. It is also used in the treatment of diabetes.

Naphthol (beta).—This drug has the peculiar property when given internally of entirely deodorizing the stools. A remedy that has the power of preventing the fæcal odor must have some physiological action. It is a valuable drug for the treatment of dyspepsia, especially the chronic form, for it prevents fermentation of food in the smaller intestine; and, being very insoluble, remains a long time in the bowel exerting its activity. It is also an excellent remedy for sick-headache from intestinal indigestion.

EYE AND EAR CLINIC AT ST. MARY'S HOSPITAL, DETROIT.

BY PROF. EUGENE SMITH, M. D.

GENTLEMEN: The first case to which I call your attention is an exceedingly common one, and one you will frequently meet with in your practice as general physicians. Properly treated, it is easily cured, and no damage can be done; not so if you go at it in a "hammer and tongs" fashion, unscientifically. As you would not cut for stone in the bladder without by proper examination satisfying yourself that the stone is there, so you ought not to attempt the removal of a foreign body or hardened cerumen from the ear without knowing such to be in the ear.

How are you to examine the external auditory canal? Not as you see me now do, by turning the ear to the window and dragging the auricle in different directions, while trying to see into the canal; but with the ear turned away from the window, and the light reflected into the meatus by means of a mirror such as is used for laryngoscopic and rhinoscopic examinations, and an aural speculum, preferably GRUBER'S. It may seem superfluous to mention these facts, but I have known good physicians to feel for a foreign body in the ear with a probe, on the statement of the patient, "There is something in my ear,"

Having seen, by means of the reflector and speculum, that there is something in the ear, how shall it be removed? Simply by means of a large syringe and warm water—the syringe should hold three or four ounces. In this case the presence of a dark brown substance, completely filling the inner half of the auditory canal of each ear, was diagnosticated by the section of your class which is now attending my daily clinic. I ordered him to fill each ear with warm water, and let it remain for ten or fifteen minutes, twice yesterday and once this morning, with a view to soften the cerumen and facilitate its removal. A solution of bicarbonate of soda has been suggested, but I find water alone answers every purpose.

In syringing the ear, let a bowl be held against the cheek close beneath the lobe of the ear; with the thumb and index finger of the left hand pull the auricle upwards and outwards to straighten the canal; then direct the rather small nozzle of the syringe either upwards or downwards towards the wall of the canal, so that the stream of water will force its way between the plug of cerumen, or foreign body, and the wall, to be turned back by the drum membrane; and by a *vis a-tergo*, a regurgitation, the substance is washed out. The use of scoops and forceps should be eschewed. You see how easily this method does the work in this case.

These two specimens of steel, illustrate a class of cases which, as general practitioners, if located in a manufacturing district, you will almost constantly meet with. One I removed yesterday, the other a short time ago. I show them to you for two purposes; first, to teach you a method of increasing your ordinary ability to see foreign bodies imbedded in the cornea, iris, lens, or lying in the anterior chamber; second to call your attention to a way of lessening certain dangers in their removal under certain circumstances. The longer piece was situated near the center of the cornea, and had penetrated the anterior chamber, and its inner point was very near the anterior capsule of the lens. The outer end was very deeply imbedded in the cornea, too much so to be grasped with forceps, attempt at which would probably have pushed it into the anterior chamber and complicated matters more or less seriously. In order to extract it, I punctured the cornea with a triangular (BEER'S) knife at the temporal periphery, gently pushed the point forward beyond the piece of steel, between it and the lens, then depressing the handle of the knife, brought the flat surface of the blade against the point of steel, and held it stationary, while with another knife the point of entrance was enlarged and the steel pushed outwards till it could be grasped with forceps and removed. The second piece, the small apparently round one, was imbedded in the periphery of the cornea beneath the limbus conjunctivalis. It had entered the cornea obliquely about a line from the limbus, and hidden itself beneath it. At first sight, with unaided vision, I thought the marked circumcorneal injection, lachrymation, photophobia, etc. was due to a small ulcer of the cornea which existed at the point where the steel struck the eye.

The patient having stated that he was cutting a piece of steel with a chisel, I was led to make a more careful examination by means of

oblique illumination, and this is what I wish to speak about. Oblique illumination consists in concentrating—focussing the rays of light from a lamp or gas jet with a convex lens of two or three inches focus upon the cornea, just as you have probably many a time focussed the suns rays with a sun-glass, in order to set fire to a piece of paper. The flame should be about two or three feet from the eye to be examined, and on the same side. By means of this method I could see a black spot on the cornea near the periphery and beneath the limbus conjunctivalis, which I was able to remove by cutting through the limbus at least two lines from the point of entrance of the foreign body.

This next case, gentlemen, is a *chestnut*. A case of senile cataract. In the removal of this cataract by GRÆFE'S modified linear extraction, I have to add to what I have already said many times this winter, simply nothing.

The same remarks hold good in this next case also. As you look at it, it "speaks for itself," *strabismus* always does. While this, too, may be a *chestnut*, gentlemen, you will by close observation always be able to get some new point in each case. Take this case for instance. This young man having had alternating strabismus, he sees equally well with either eye. This is not the case in most cases of this affection. Cases like the one I here present are the most satisfactory to treat; for after operation, and the fitting of proper glasses to overcome the error of refraction which is nearly always the cause of the squint, the vision is good. In many cases, you know, cases in which the same eye is always used for fixation, the deviating eye, the squinting eye, loses its power of vision largely, or totally.

130 Lafayette Ave.

CLINICAL LECTURE, DETROIT EMERGENCY HOSPITAL—AMPUTATION OF LEG—GANGRENE—ARTIFICIAL RESPIRATION.

BY HAL. C. WYMAN, M. S., M. D.*

Gentlemen:—This man is 54 years old. His habits have been good. He is a carpenter. Ten years ago he was at work on a scaffold which gave way and fell to the ground. His left ankle got caught in the timbers and was crushed. Prof. SMITH, who dressed the wound when the man was brought to the hospital, tells me that he found him with a compound fracture of the os calcis, the internal maleolus, and a compound dislocation of the astragalus. The circulation in the posterior tibial artery was unimpaired. The astragalus was removed from the wound because its ligaments were nearly all severed, and it was impracticable to restore it to its normal position. The wound was then dressed antiseptically; a paste-board splint was applied to the leg and foot in a way to prevent movements of injured parts. For a few days the wound did well, but later it began to suppurate profusely; the patient had chills and fever. The stitches were removed to improve the drainage. The wound was washed daily with a weak solution of corrosive sublimate, 1 to 5000. The general health of the man steadily declined. One night when he was very restless, the wound suddenly began to bleed. Compresses were applied, and checked the hæmorrhage for a few hours. Then it returned more copiously than before, and Dr. SMITH was obliged to ligate the posterior tibial artery to control it. The patient is now very weak; you can see that the circulation is very poor in the injured limb. The foot is cold and pale.

You notice the red color of the integument of the leg—that it meets the pale color of the foot near the lower third of the leg, and extends up the limb along the calf.

If we delay the removal of this dead and septic foot, we will surely sacrifice our patient. We have toned him up with alcohol and opium for the operation. His pulse is very rapid, but full and regular, notwithstanding the pinched and pallid aspect of his features. He is so weak that many would not operate now, but in my opinion that would be giving him no chance for his life. If my limb was in the same situation, and my system no stronger than his, I would say to the surgeon, cut it off! Give me a chance to get well! You will notice how he struggles against the anæsthetic. The chloroform evidently causes spasm of the feeble muscles of his larynx. You must exercise caution extraordinary with your anæsthetic in cases of extreme weakness like this. Now, you will notice his breathing has stopped entirely. He is apparently dead. Artificial respiration must be depended upon to move the blood in the respiratory centres, and if there is not too much chloroform there, he will revive.

The extremities may be raised and the patient suspended head downwards while the artificial respiration is being carried on if necessary.

You notice that he is now making some feeble efforts at respiration and we will soon be able to proceed with our amputation. The successful re-establishment of the breathing and circulation which you have just witnessed should stamp indelibly on your minds the value of faithful and persistent artificial respiration as a means of resuscitation. It is not often one sees the dead called back to life as literally as in the case which his just transpired. All credit is due to my assistants who have so skillfully conducted the resuscitation. Now we can proceed with the amputation. We wash

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the diseased limb with a solution of corrosive sublimate made by dissolving five grains of the salt in a pint of boiled water. This is to kill the bacteria and spores which abound in suppurating wounds. Now we begin at the injured ankle, wrap it in cotton and roll a rubber bandage up to the knee. Drawing it as you see tight enough to drive the blood out of the leg we propose to remove it into the body where it can do the patient some good. This we call the "bloodless" method in surgery, and its immense value to mankind you can easily comprehend. Just see how a circular flap is made and bone divided with the saw and not one drop of blood to be seen. Notice that we have pulled back the soft tissues so as to saw the bone where it cannot protrude through the flaps and delay the healing of the stump. We also have made a small flap of periosteum to cover the bone where it is torn by the saw. Such an operation may be called a *sub-periosteal amputation of the leg.* We next ligate the arteries in the stump. We have no trouble in finding tibial and peroneal arteries. We can see their open ends. The ligature is applied without pulling the arteries from their beds where they are surrounded by the vasa vasorum which maintain their nutrition. Secondary hemorrhage may be caused by disturbing these structures unnecessarily.

Now we have the elastic bandage removed from the thigh and let the blood in the femoral artery, push into the leg. We see several small bleeding arteries which we catch quickly with forceps and ligate. Then after washing the stump with hot water we introduce a drainage tube and close the flap with interrupted suture. Next we apply the final dressing. This is intended to keep out any germs which might infect the wound. We place a strip of corrosive sublimate gauze over the wound. Over that we place a layer an inch thick of oakum which has been freshly sterilized by roasting it on the hot stove. I turn the oakum, much as a cook turns a pan-cake, when it gets so hot that it smokes on one side. When both sides are heated thus on the hot stove there is little danger of any germs remaining with sufficient vitality to infect our wound. Over the oakum is a layer of ordinary cotton batting which I will roast on the stove in the same way that the oakum has been roasted. Now all these dressings are fastened with a roller bandage so that they cannot easily shake off. They will not be disturbed until the stump heals, unless they become soiled with discharges. Then they will be removed, the wound washed with antiseptics and new dressings of the same kind reapplied.

This case teaches us how to perform artificial respiration for resuscitation from chloroform death. How to recognize and treat a case of traumatic gangrene of the legs. How to prepare, make and dress a stump.

CLINICAL LECTURE.

ACUTE RHEUMATISM IN AN INFANT OF 22 MONTHS.

BY PROFESSOR A. OLLIVIER.*

GENTLEMEN:—We made yesterday the autopsy of a little girl to whom I have frequently called your attention in our daily visits. She succumbed to an articular affection concerning the nature of which I now wish to speak. This is the history of the case;

Sept. 30, 1886, there was brought into our hospital a little child aged 22 months, Georgette Alb—— whose family history is rheumatic—both father and mother having had several attacks of rheumatic fever. Placed in charge of a nurse near Corbeil, she remained there till the end of last month. At this time she was taken to Paris in good health.

About the third week in September, the father took his little child out to walk almost every day, without regard to the mother. He made her walk an hour in the morning and an hour in the evening. At the end of the week, the little girl was taken in the night with a high fever. The next day she was unable to walk or even get out of bed, and was in great pain. It was soon discovered that the lower extremity of the thigh and the knee was swollen. A physician was called, who prescribed Neopolitan ointment (ung. mercuralis). There being no improvement, the little child was removed to this hospital.

This was the condition in which we found her on the first of October, according to notes made at the time: "The tumefaction has disappeared in great part from the thigh, but the bone still remains swollen, and is red and painful; the least attempt at flexion causes the child to cry out. Palpation reveals considerable effusion within the joint, as a swelling of the extremities of the bones. Pressure over the lower extremity of the femur causes but little pain; there seems at this time to be only tumefaction of the periosteum. Axillary temperature; 99.°5 F.

The local temperature taken on each side furnishes the following results:

Diseased knee	{	Popliteal space 98.4
	{	Anterior aspect 98
Sound knee	{	Popliteal space 92
	{	Anterior aspect 93 5

Pulse, 104 per minute. Nothing peculiar to note about the heart, lungs, and other organs.

We make the following diagnosis: Rheumatic

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arthritis, with slight osteo-periostitis of the inferior extremity of the femur.

The treatment consists in the application of a large blister, dressing with mercurial ointment in which was incorporated a little of the extract of belladonna; internally, phosphate of lime, and syrup of iodide of iron. The limb was immobilized in a hollow splint.

October 12th, the temperature in the axilla was 97.5° F.; the local temperature, taken in popliteal space, was: In the sound knee, 103° F.; in the diseased knee, 105.4° F. The effusion has sensibly diminished, and exploration has become less painful. The swelling of the lower extremity of the femur has almost disappeared. Nevertheless, the knee is still kept on the splint."

Under the influence of rest and a couple more flying blisters, the symptoms rapidly improved. Everything led us to expect a prompt recovery, when, on the 6th of November, the infant took measles, and died shortly of broncho-pneumonia.

The opening of the diseased knee-joint disclosed the following lesions, which are characteristic of rheumatic arthritis: Redness and tumefaction of the synovial membrane and the alar ligaments, erosions (as if made by the finger nail), and a mammellated aspect of the cartilages. These alterations were chiefly apparent in the outer part of the joint. The periosteum of the ends of the bones seemed normal.

We had then to do with a subacute case of monarticular rheumatism, an affection extremely rare at the age of three years and under. This infrequency is easily explained. Very young children who are generally well cared for are less exposed than older persons to the ordinary causes of rheumatism. A few cases only are on record, while from the ages of three to seven years the affection becomes quite frequent.

KILLET and BARTHEZ relate the case of a babe of seven months who, during a season when rheumatic affections prevailed, was taken, first with a slight roseola, then with a pain and swelling in one of the feet; then supervened an attack of eclampsia, and, following that, a contraction of the muscles of the neck, accompanied by an intense fever. After second day, the symptoms of pleurisy appeared, then the muscular contracture came on again, which went away coincidently with a painful tumefaction of the left wrist.*

VOGEL† refers to a case observed by him in an infant of twenty-one months. FULLER saw the same affection in two infants, the one twenty months, the other thirty-three.‡ BOUCHAT, under the name of articular rheumatism of new-born infants, gives five cases of arthritis, four of which ought rather to be referred to purulent infection: but one of these cases is very interesting, being undoubtedly rheumatism. An infant of five months, having an otorrhœa with fever, becomes sick, and presents successively a swelling of the feet and of the knees, accompanied by pains exaggerated by pressure and the movements of the limb; there was no redness of the skin, and the heart presented no functional disturbance. There were no gastric or pulmonary accidents; the fever remained very moderate, the pulse did not exceed 130 per minute. At the end of eight days, the swelling of the feet disappeared, and the pain abated, but the knees remained swollen and painful for a month. Stramonium poultices were applied with benefit.

We may say then, considering the rarity of the affection, that infancy and early childhood possesses a peculiar immunity with regard to acute rheumatism.

Chronic rheumatism is equally rare; hitherto only a few cases have been known. Dr. MONCORVO has published a very interesting case relative to a little girl aged two years and a half.

When you are in possession of acute articular phenomena in subjects of this young age, you will be likely to ask if you have not to do with one of those arthrites, badly defined, which have been called *pseudo-rheumatic*, and which are perhaps as frequnt as true rheumatism.

Traumatism produces arthritis, but our little patient had never had a blow or a fall. We could not refer her trouble to *growing pains*, for the swelling of the diseased parts, and the redness of the skin, indicated a more complete process; it was not a *diathetic arthritis* (scrofulous, tuberculous, or syphilitic), for the general condition was excellent. There was no ground to suspect *septic*, *infectious arthritis*, much less, *nervous arthropathy* or *peri-articular neuritis*. The two latter pathological processes may be observed in any young infant, according to JACOBI.* But the apyrexia, the fixity of the pain in one joint, the absence of effusion, habitually characterize these nervous joint troubles, and they are really quite exceptional returrences. The existence of points painful to pressure along the tract of the nerve, and the integrity of the joint, will always clear up the diagnosis in cases of this kind.

In our little patient, we could only refer the trouble to one of two things, either articular rheumatism or phlegmonous periostitis. We hesitated a little at first, for the inferior ex-

* Killet and Barthez, Clinical Treatise on Diseases of Children.

† Vogel, Elementary Treatise on Diseases of Children, p. 330.

‡ Fuller on Rheumatism, London, 1870.

* Jacobi, Acute Rheumatism in Infancy and Childhood, New York, 1875.

tremity of the femur or at least its periosteum seemed involved. The following case which some of you may remember, will show you better than a long discourse, how similar are the two latter affections.

June 10, 1884, there was brought to our clinic a little girl, thirteen months old, of good constitution, and still nursed at the breast. This babe uttered cries whenever we moved its right leg.

Born of young and vigorous parents, this child had never been sick till the last few days. June 5th, the mother went to Versailles to spend the day; the weather was damp and chilly. She remained sitting for two hours on a bench out doors, and the little child whom she was holding in her arms, got badly chilled, and was taken the following morning with high fever, pain in the abdomen, and constipation.

For four days this febrile state persisted with the same characters. On the 10th, the mother, perceiving that the right knee was swollen and painful, brought the little girl to the hospital.

The following note was made on this occasion, "The right leg is slightly flexed on the the thigh; the lower third of the latter and the knee are the seat of a notable tumefaction; the skin is warm, red, and tense. An attempt at extension, however slight, even palpation alone, causes the patient to cry out with pain. We find by measuring that the lower extremity of the right femur is larger than the corresponding extremity of the left. The temperature of the popliteal space on the diseased side is 100° F., on the well side it is 97 F. The axillary temperature is 104° F. Nothing wrong with the heart and lungs. The child nurses well, but is very restless in the night.

These divers symptoms having followed a chill, led me to think we had before us a case of monarticular-articular rheumatism, with propagation of inflammatory process to the femoral periosteum. I prescribed mercurial ointment with belladonna, immobilization of the limb, and lavements with three to four grains of sulphate of quinine. On the 19th of the month, the child returned to the polyclinic. The following note was made.

"She seems better, and takes the breast with avidity. No convulsions, despite an intense fever. Pulse 148. No heart murmur. As for the local symptoms, they have taken another phase. The tumefaction has notably augmented, and has risen to the middle of the thigh; per contra, the swelling of the knee appears to be almost nil. The skin feels hot over the tumefied parts. The sensibility to touch and palpation is still very great; at the same time, if you take care to distract the attention of the child, you can succeed in giving certain movements on the femero-tibial articulation without provoking cries. Lastly, one can not fail to remark that the tumefaction depends chiefly on the augmentation of volume of the bone; there exists a doughy swelling over the condyles, but no fluctuation. Measurement of the affected side gives 19 centimetres, that of the sound side, 17.

In presence of such symptoms, hesitation was no longer possible; we had to do with a case of *phlegmonous periostitis*, for the lower extremity of the femur was alone affected.

Dr. ST. GERMAIN being called in consultation, confirmed the above diagnosis. As concerned the treatment, it was deemed best to wait, fluctuation not being yet apparent, and to apply a fly-blister, the vesicated surface to be afterward dressed with *Unguentum hydrargyri*.

On the 21st, the little patient was brought to us again. The following note was made:

"She continues to nurse well, and does not cry, except when you touch the swollen part. The skin keeps the same coloration; there are no dilated veins apparent: the soft swelling remains the same, without distinct fluctuation. Dimensions of the diseased side, 22½ cub. cent.: of the sound side, 17. Axillary temperature, 104° F. Temperature of the lower extremity of the femur, diseased side (the thermometer being kept a quarter of an hour pressed over the swelling), 100° F.; over the corresponding part of the other femur, 98°. Local treatment, mercurial plaster and compression."

The child was afterward taken to the Bechat Hospital; at the end of a week M. TERRIER, surgeon in charge, detected fluctuation, and gave issue to a notable quantity of pus.

I saw the patient two months after; she was then completely well.

This fact alone suffices, as I have said, to show that at the onset phelgmonous periostitis in young children much resembles acute articular rheumatism. The difference of frequency of the two affections is not sufficient to establish the diagnosis. Moreover, phlegmonous periostitis itself is not common during the first two or three years of childhood. Out of 24 cases reported by LANELONGUE, the youngest was three years old; and in 13 cases observed by ST. GERMAIN, not one was less than seven years old. HOLMES cites but one case relative to a very young infant. According to GIRALDES, this affection belongs especially to the period of life between the first and fifteenth year.

Can the symptoms guide us any better? The two affections have common characters: the redness of the teguments, the pain, and the swelling, the elevation of the local temperature, and, later, the fluctuation. But in rheumatism the pain is seated chiefly over the middle of the joint, while it is above or below this point in phlegmonous periostitis, which is accompanied by a fever much more intense

than that of rheumatism. These differential characters are not always sufficiently clear to enable us to affirm the diagnosis, and it is easy to understand how perplexed the clinical attendant sometimes is, especially when the inflammation is propagated from the joint to the epiphyses.

I must call your attention, in closing, to the absence of all cardiac lesion in our case. It is not always so. In quite young children, rheumatism may be complicated with endocarditis, followed by permanent lesions, whose origin at a later date is with difficulty explained, and which are often referred to anything but rheumatism.

GALLIC ACID—ITS USES.

BY ZINA PITCHER, M. D.*

In the craze for new drugs it becomes painfully apparent to the graduate of years ago that the worth and range of application of the older and time honored remedies is entirely forgotten, and in the knowledge of this fact lies the excuse for this article.

The superiority of gallic acid in internal administration, to tannic acid when used for the purpose of controlling hæmorrhage from points otherwise than the intestinal tract is a fact well known to the older practitioner.

In order to make this matter clear it is necessary to outline the physiological effects of the two drugs.

Tannic acid has the well known property of precipitating all albuminoid and gelatinous substances if constringing the tissue to a marked degree when brought in direct contact with them being the more styptic of the two, in this manner controlling the secretion by its constringing influence on the mouths of the glands. In this manner limiting for instance, the amount of digestive ferments secreted, and checking digestion, which is in itself, an objection. Again in moderate doses it causes obstinate constipation by acting as a drying agent, lessening the secretion of the intestinal tract, and even in large doses causes the same phenomena at first, though later causing catharsis by its irritant action. This naturally would result in gastric and intestinal irritation. In all cases of hæmorrhage any action of this nature would only add to the ill feeling of the patient, by affecting adversely a heart action already enfeebled by its influence sympathetically.

Again, tannic acid is probably converted into gallic acid in the blood and acts as such after having associated with itself, certain elements of grape sugar found in the blood during respiration, gallic acid being alone found in the urine. As regards gallic acid we can say that it is less severe in its action upon mucous membrane to which it is directly applied than tannin, does not cause such obstinate constipation, does not check the secretion so markedly, or precipitate the gelatinous and albuminoid secretions, and is less irritant, hence, is not so liable to affect the digestive tract, and upon being absorbed and taken into the circulatory system has not to undergo a change but acts directly, and influences just as quickly and markedly the muscular fibre of the blood vessels, contracting them just as firmly and satisfactorily.

Again it is just as handily given, as it can be used in solution or in capsules, associated with lead, bismuth, opium and many other astringents which will act as valuable adjuvants, can be used in doses ranging from 2 to 10 grains, and even larger for the purpose of relieving such troubles as hæmoptysis, hæmaturia, menorrhagiæ, hæmorrhage from the urethra, in fact from any point. It can be used advantageously in purpura hemorrhagica, or in Bright's disease, the specific gravity of urine being sometimes raised from 10.04 to 10.14 in a few days.

It can be used as advantageously in the albuminuria following scarlet fever and other inflammatory affections, has a tonic effect upon digestion when there is an atonic condition of mucous membrane through its property of insuring a more proper digestion and assimilation of food, has upon lung tissue the property of rendering it more firm and of limiting ulceration of mucous in the bronchi, and of controlling the sweats of phthisis, acts advantageously in catarrh of the bladder, stomach, and intestines, acts well upon fibroids of the uterus, influencing the blood supply to them, limiting their nutrition, hence assisting materially in their removal

Applied locally it should be ranked second only to tannic acid, among the vegetable astringents in its styptic quality. Being applicable to such affections as pharyngitis, tonsillitis, mercurial ptyalism, leucorrhœa, gonorrhœa, and many kindred affections, as a dressing for ill-conditioned ulcers, to tissues liable to ulceration, to fissure of the anus or of the nipples.

International Medical Congress.—When, in 1887, the ninth international medical congress was held in Washington, the city of Berlin was selected for holding the tenth congress. Notice has recently been given, over the signatures of VON BERGMANN, VIRCHOW, and WALDYER, that the congress will convene August 4th and close August 9th, 1890.

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Correspondence.

IMPORTANT POINTS FOR PYSICIANS TO CONSIDER.

The following letter, written by a prominent Philadelphia physician, speaks for itself: We fully believe in the integrity of the retail druggist; and, if he be a graduate in pharmacy, we believe in his ability to make his own preparations, but there are matters involved over which he has no control that make it impossible for him to furnish preparations of some drugs of as fine a quality as the larger manufacturing houses are enabled to turn ont. These matters are well brought ont in the Doctor's letter, and they are matters of vital interest to the medical profession.

I have been much interested of late in investigating the subject of drugs and their preparations for the benefit of my patients, several of whom complain that they do not get the effect from certain prescriptions that I had assured them would follow their administration. So certain was I in the case of one of the drugs that I preseribed, that I determined, it possible, to ascertain the reason why a preparation from one druggist should produce different effects from that obtained from another, for I found that to be the case. The result of my investigations are as follows:

We have first to assume, that above everything else, we require a uniform preparation, to obtain which necessarily only prime drugs in their best stages of preservation should be used. These preparations are made either by the retail druggist, or the large manufacturing houses. As the difference in class between the retail druggists and the large manufacturing houses is very great, as will be seen from what follows, the question resolves itself into this query: 1st. Which is better, to specify the name of one of these houses on our prescriptions, and insist that only the brand specified shall be used, or refuse to specify and let our prescriptions be filled with goods made by the retailer? Now, it seems to me, from my careful investigation of this subject, that the real facts in the case are very different from what is commonly supposed. In the first place, no matter how great the integrity of the retailer may be, it is utterly impossible under the present condition of affairs for him to obtain prime crude drugs, for the reason, that the manufacture of fluid extracts in our country has now become so important a branch of the business that they, being very large buyers of these things, have as a result the first choice of these drugs either abroad or as they come into this market. This being the case, such manufacturing houses as enjoy the largest patronage of the trade naturally have the first choice. I find that one of these houses at least purchase their supplies in the original market—that is as far as narcotics and the principle drugs are concerned, and that they have a representative upon the spot, thoroughly posted in the business, instructed to assay every parcel of drugs as they are brought into the market, and to select from it only those which come up to the standard given him. Manifestly, concerns who do this have first choice, after which the importers of drugs in all countries, notably England and America, have their choice. These drugs are brought into the market, and the next to choose from them are the smaller or less enterprising manufacturers, who receive notification upon the receipt of these goods, and take the second choice. Now, what is left? Necessarily, the goods that are of at least inferior quality, and in many cases wretched stuff. These pass into the hands of our wholesale druggists, upon whom our retailers are dependent for their supplies.

Let us see, therefore, how the case stands. A jobbing druggist will buy, for instance, a bale of belladonna leaves, weighing, possibly, from two to five hundred pounds. These leaves must be sold. If sufficient trade is enjoyed by the house to dispose of them in a single season, all well and good. If, however, to the contrary, as is the case with most of our jobbing druggists, such demand does not exist, they are held and carried over in the stock from year to year, the order being filled from these packages until at last, possibly after years have passed, the goods are sold. It is a well-known fact that many drugs deteriorate by keeping, and, although there may be no apparent evidences of decay, still their active principles are affected, and in many cases entirely destroyed by age. Any educated druggist is well aware of this fact. Now I claim that the retail druggist is rare who has had the experience necessary to qualify him to thoronghly judge of a drug by its physical appearauce, and that there is not one in a hundred that is capable of making an aualysis of drugs if so inelined. It would not pay to make an analysis for the small quantity purchased. And, finally, there is not enough drugs of the prime quality referred to for the purpose of supplying the demaud of the retailer even if he would pay the advanced prices uecessary to secure them.

It must be apparent, then, that the preparation of drugs in the hands of the retail druggists, required as they are in small quantities, are not a finished and uniform product. On the other haud, it must be equally apparent, that the large maufacturing houses, laying in their stock freshly from year to year, and at once putting them into alcoholic solutiou as is the habit, so I am informed, insure them against loss of active principles by age, or destruction by exposure, and that the result must

be uniformly in producing a fine quality of goods.

The argument is frequently offered, that the manufacturing houses are not careful in their selection of crude drugs, but buy up the unsightly and the unmarketable articles that appear from time to time, thinking that this cannot be discovered by those who use it, as its form is entirely changed. While this may be true in some instances, the charge will not apply to but few who are at present engaged in supplying us with drugs. The larger houses are entirely dependent upon reputation for the business that they do, competition is very sharp, and how foolish and suicidal it would be to risk that reputation for the little saving that would accrue from such a method of buying. On the contrary, there are too many examples of houses who use the utmost care in this direction, jealous of their reputation and ambitious for the enlargement of their business.

To sum up, therefore, a retail druggist in many cases has not the knowledge of drugs sufficient to be a selector of such, and even had he the theoretical knowledge, he has not the experience in selecting to be as competent to judge as he whose duty is such as to peculiarly qualify him for selecting drugs, and who has the opportunity to subject them to assay. In the second place, though he were a competent judge the best drugs have been picked out before they reach his hands. In the third place there is no donbt that goods made in quantity by the manufacturer from selected stock are far more uniform in quality.

It seems to me, therefore—and I have found it to be true in experience, both in hospital and private practice—that we can secure the best effects from medicine, by specifying some special brand of manufacture that we know to be good, and insisting that our patients be supplied by the brand specified and no other. Then I would have the profession insist that the manufacture of every article shall be open to legitimate competition by abolishing all secrecy in its manufacture, so that, by always specifying the best competition we shall bring up every house to a common standard.

F. E. STEWART, M. D., PH. G.

A Proposed Five Years Course for Medical Students.—The Committee of Management of the Royal Colleges of Physicians and Surgeons of England have recommended an extension of the period of professional study to five years for candidates for qualification by the Conjoint Examining Board in England, and their recommendation has been accepted by the Council of the Royal College of Surgeons, whilst the Fellows of the Royal College of Physicians have referred the matter to the Council for further consideration.—*London Lancet.*

The Medical Age.

A SEMI-MONTHLY REVIEW OF MEDICINE.

B. W. PALMER, A. M., M. D., Editor.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

DETROIT, MICH., DEC. 10, 1889.

Editorial.

IS MEDICINE A SCIENCE?

The general belief to-day is that medicine is far from being a science. This is apparent even in our popular literature where not infrequently the doctor's pretentions as to the cure of disease are ridiculed. The rapid progress that medicine has made in the past quarter of a century is certainly very little appreciated by the public in general.

In a discussion of this question in the Forum for December, Dr. GEORGE M. GOULD ably defends the claims that medicine may now justly advance as to its place among the sciences, and recounts some of its achievements and prospects.

In surgery, ophthalmology, obstetrics, dentistry, otology, dermatology, etc., there is on the part of competent physicians no considerable difference as to diagnosis and treatment in a given case; and the reduction of the mortality from diseases belonging to these departments is proof of that systematization and accuracy which we call scientific. It is well known that the application of bacteriological study to surgery, obstetrics, etc., has in important respects revolutionized them. Surgical, hospital, and puerperal fever are now almost things of the past. Twenty years ago it was not uncommon for the mortality of puerperal septicæmia to mount as high as 30, and even 50 per cent. It is to day less than 1 per cent. The same explanation is to be given as regards the successfulness of the modern Cæsarean section. The science of pelvimetry has also saved the lives of many children and mothers. Ophthalmology is perhaps the most exact of the medical sciences, and even if no prophylaxis of cataract ever be found, the restoration of vision in 95 per cent. of cataract operations is a decisive proof of excellent work. But, perhaps, a still greater beneficence is to come from stilling the most fertile sources of reflex neurosis—the headaches, dyspepsias, choreas, etc., so often due to "eye strain."

If one thoroughly conversant with the medical progress of the last few years take up even

the best work on pathology or general medicine issued five or ten years ago he is astonished to find how much seems old and outgrown. The stupendous discoveries and advances made from day to day cause the book before the last to seem like history rather than present day conclusions. No other discovery has aroused so great hopes, and none has so superbly satisfied many of them, as that of the existence and disease-producing influence of the minute organisms called bacteria, microbes, or micro-organisms. Their pathogenic influence is now established beyond controversy, and to this discovery is due the revolutionizing of surgery, the extinction of surgical and puerperal fever, etc.

Indeed, every department of medicine has been electrified by the partial success and perfect promises that it holds out. The infective diseases are the principle disease and death-producers of the world, and all are quite certainly bound up with the transfer of specific bacteria or poisons from one organism to another. The profound, almost sole, lesson of prophylaxis and preventative medicine, is the avoidance of contagion.

Phthisis, the most fatal of all diseases, causing one death out of every eight, is now proved to be contagious. Its inception depends upon the passage of the living bacillus from one organism to another. When this is prevented the dread affection will no longer mow down its millions. Its prevention seems easy, and by two feasible simple means: the devitalization of the sputum of consumptive patients, since the desicated tubercle bacillus still maintains its vitality; and the legal control and inspection of all dairies and the slaughtering of animals, so that tuberculous meat or milk shall not be sold.

There is now no doubt that bovine and human phthisis is the same disease, due to the same micro-organism, and that the transfer of the latter to man, by the ingestion of tuberculous meat and milk, is a common cause of human phthisis. Dr. Behrens regards the exceptional freedom of the Jewish people from phthisis, and its low mortality, as due to religious rules concerning the choice and killing of cattle and the sale of meat. Up to the present time it must be confessed that bacteriological studies have not brought out therapeutical measures to equal the etiological importance ascribed to the micro-organism. To the patient attacked with infectious disease the thing of all importance is not prevention, but cure. The enemy is intrenched. The great aim now is to find some agent that will reach and kill the bacterium without killing the organ or tissue in which it is secreted. Many indications, and indeed many successes, foreshow that we are upon the eve of brilliant victories in this respect, and the active ingenuity of a thousand delvers is at work upon the problem. What honor too great for the discoverer of such an agent? A most promising outlook is also found in the discovery that immunity is gained in some diseases, and perhaps in many, by the inoculation of purely chemical, or artificial synthetic, substances. The thought, like so many, is brilliant with possibilities that make us wish to see what the next few years may bring forth.

A beautiful illustration of the possible method of action and reaction between the bacterium and leucomaine is the theory of malarial and intermittent fevers—a theory, indeed, that rests upon a pretty firm basis of probability and justifiable inference. It is well known that bacterian culture media often develop some substance that stops their growth and that they die, as it were, in their own poison. It is supposed that the malarial micro-organism does the same in the blood, and that the remission or intermission stage of the disease corresponds to the period when the circulating bacteria have been drowned or paralyzed by their self-producing poison. The stage of the return of the fever is synchronous with the revivification of the microbes, or with a fresh invasion of new armies from the spleen and lymphatics. Thus, again and again, are we brought back to the conclusion that in aim and in fact medicine is becoming preventive. Every discovery, even in therapeutics, seems to bear in its hand the motto, Prophylaxis is the best cure. It is not that great and invaluable discoveries of healing agents are not constantly being made. The nobler aim and the manifest destiny of a far-sighted prevention become necessarily dominant ideals.

THE MOODS OF THE SANE.

There is a posthumous paper in a recent number of the Neurologist by Dr. J. Milner Fothergill, which deals—in the pleasant and instructive manner for which its distinguished writer was so celebrated—with this interesting question. If we would rightly know the workings of the human mind in their varied conditions, we must study them, as the brilliant author tells us, in the insane asylum. What angry man amongst us may not find food for reflection, and learn the habits of self control from the incoherent ravings of frenzy? What garrulous self-centred man may not be rebuked when he sees his infirmity a little magnified in the flow of the talking maniac?

The delusion of the over-sanguine, the groundless fancies of the visionary, the baseless conceptions of the jealous, and the morbid religiosity of the despondent man, all find their legitimate projections in some fixed conditions common enough in the dread abodes of the insane, and all have lessons for us. The asylum

held up the mirror to the observant eye of Dr. MILNER FOTHERGILL, showing him our natural and healthy moods when perverted by disease, mismanagement or neglect into forms of mental disorder. A bad habit or the dominance of an unfortunate predilection may disturb the balance of an otherwise healthy mind as effectually as the touch of a magnet on the balance wheel of an exquisite watch will impede its regular motion.

SHAKESPEARE thought that the "lean and hungry" looking CASSIUS must naturally be dangerous, and the general testimony of English writers at any rate is to the close connection existing between fat folk and good temper. Dr. FOTHERGILL was a grand example in himself, and we can picture the relish in which he wrote, "When the brain is well fed, it has a sense of well being; when it is ill-supplied with blood, it is irritable, miserable, and despondent." But alas, the very process of feeding the brain and making general contentment in the body too often vitiates the blood, and as the old writers would say "disturb the humors." The good feeder gives a standing invitation to the gout, and the gouty material in the blood makes a man "choleric," that is to say, hasty and irritable. The over-fat amiable man has fits of "the blues," he often descends to the melancholy mood, and then as old BURTON says, "he is the cream of human adversity, the quintessence, and upshot." A disordered liver makes many a one think he has sinned the unpardonable sin, and a good purge has often lifted a burden from the conscience as heavy as that of BUNYAN'S Pilgrim.

If our mental states are so often caused by pathological conditions, it is no less true that the mind can control the body; and the man or woman who, in popular phraseology, "gives way" to his moods, runs eminent risk of becoming their slave.

MONOBROM-ACETANILID.

This formula is a comparatively new chemical compound, and, as indicated by its formula, $(C_6H_4BrN{<}^{CO.CH3}_{H})$ is a derivative of acetanilid containing 37 per cent. of bromine. It crystallizes in heavy prisms, which are readily soluble in alcohol, and is without odor or taste. Its medicinal action is similar to that of sodium bromide and acetanilid, a combination which is frequently prescribed by the physician owing to the desirable sedative properties of the former in modifying the effects of acetanilid.

It is spoken highly of in the treatment of facial neuralgia and rheumatism, and, in fact, in all cases where acetanilid has been heretofore employed.

Clinical experience would indicate that it is a more active remedy than acetanilid, and should consequently be employed in correspondingly smaller doses. The minimum and maximum doses thus far established are 1 to 8 grains. In neuralgia, rheumatism and allied affections, 1 to 2 grains, may be administered every three hours.

Book Notices.

A HANDBOOK ON PATHOLOGICAL ANATOMY AND HISTOLOGY With an introductory section on Post-mortem Examinations and the Methods of Preserving and Examining Diseased Tissues. By Frances Delafield, M. D., and T. Mitchell Prudden, M. D. Third edition. Illustrated by 224 wood engravings printed in black and colors. Published by Wm. Wood & Co., New York, 1889.

There are few branches of medical art in which study has been more profitable than that of pathological anatomy and histology. The authors are well known in connection with their special work and experience relating to these subjects. The third edition before us comprises instruction in the methods of making post-mortem examinations, of preserving diseased tissues, of preparing them for microscopical examination, and of cultivating and examining bacteria. It gives also an account of the lesions of the different parts of the body, of the general diseases, of violent deaths, and of poisoning; of the structure of tumors, and of the changes produced by inflammation and degeneration. The drawings are original with the authors, and the work an efficient one to those wishing a reliable guide to these important features of the physician's art.

A TREATISE ON MATERIA MEDICA, PHARMACOLOGY AND THERAPEUTICS. In two volumes. Devoted to Pharmacy, General Pharmacology and Therapeutics, and Remedial Agents not properly classed with Drugs. By John V. Shoemaker, A. M., M. D., and John Aulde, M. D. Published by F. A. Davis, Philadelphia, Pa. 1889. Price: cloth, $2.50; sheep, $3.25. Vol. I.

The authors of this work have previously won their spurs in the medico-literary arena, and we may therefore naturally expect a useful and practical presentation, in a comparatively condensed form, of the essentials of the arts they describe and in looking through the volume before us we find this to be the case.

A feature of the work which will make it particularly acceptable to many readers will be the prominence given to what may be termed extra-medicinal agents. Such subjects as electro-therapeutics, oxygen, hydro-therapeutics, masso-therapeutics, the rôle of mineral waters in the relief of disease, metallo-therapy, transfusion, hypnotism and suggestion, earth-dressing, climatology, light, music, blood-letting, and suspension, are given due consideration; and the physician may have before him, in this conveniently collated form when con-

pleted by the second volume, an armamentarium of great value, of both medicinal and extra-medicinal agents, to choose from.

Essay on Medical Pneumatology, A Physiological Clinical and Therapeutic Investigation of the Gases. By J. N. Demarquay, Surgeon to the Municipal Hospital, Paris, etc., etc. Translated by Samuel S.W. Wallain, A. M., M. D. Illustrated with Wood Engravings. Published by F. A Davis, Philadelphia, Pa. 1889. Cloth $2.00, Russia $3.00.

The extra medicinal means of medication are very apt to fall into the hands of quacks who are quick to appreciate anything of an impressive nature to inspire the confidence of their patients. This is no reflection on the method itself however, and we are glad to see an English translation of the salient parts of a well known French work on oxygen, issued by one who has given so much study to this subject as Dr. Wallain. All that is required to lead to the correct use of this agent in certain conditions of impaired respiration and lack of proper oxygenation is to present more widely the views of competent authorities whose opinions are worthy of credence and the practical points requisite to its application and we might say its limits of utility. To determine its range of use the time is now ripe. It needs most of all further careful experiment by physicians in appropriate cases and given a thoroughly pure article with the improved and cheaper methods of administration now made practicable it is likely to occupy in the future a not unimportant place among remedial agents.

A Treatise on Diseases of the Nose and Throat. In two volumes. By Francke Huntington Bosworth, A.M., M.D., Professor of Diseases of the Throat in the Bellevue Hospital Medical College, etc., etc. With colored plates and 182 wood cuts. Vol. I. Published by Wm. Wood & Co., 56 Lafayette Place, New York.

Volume I is devoted to a consideration of the nose and naso-pharynx, and with the exception of two chapters on Mucous Membranes and Taking Cold, the volume of Diseases of the Nose and Throat by this author, already well known to our readers, has been entirely rewritten.

With the completion of the companion volume, we believe that Dr. Bosworth's work will be of the most helpful and practically suggestive American work on this important class of diseases. Growth in a knowledge of the curative treatment of these affections has kept pace with that incident to the increased special study devoted to the different branches of medical practice for the past decade, and the general practitioner should avail himself of this increased knowledge which is communicated by the latest editions of books of this advanced character.

The Evil that has been said of Doctors. Collected from "Le Mal Qu'on a dit des Medicins" of Dr. S. J. Witkoski. Translated with annotations by T. C. Minor, M. D. Reprinted from the Cincinnati Lancet and Clinic. Paper. Price, 50 cents.

No better proof of the improvement of the social and scientific status of the physician of to-day over that of past centuries, could be adduced than this collection of reflections on the intelligence of physicians as portrayed in the literature of early Greek, Latin, French and mediæval authors. We have found the perusal of this book most entertaining and would commend it to physicians who are discouraged by the obstacles met with in the attainment of professional success as a placebo to their vanity. They may congratulate themselves that in the literature of to-day the physician occupies a much more enviable place. To him is ascribed the heroic qualities and omniscence of a demi-god. It can be denied that the ideal of physicians is higher in the present age than ever before and that medicine as it grows more scientific commends in its votaries the highest attainments, social and educational.

Education and Culture as Correlated to the Health and Diseases of Women. By Alex. J. C. Skene, M. D. Fourth Series Physician Leisure Library. Published by Geo. S. Davis, Detroit, Mich. Paper, 25 cts.; cloth, 50 cts.

The author has given in this brochure a very scholarly presentation of a most important subject. It is fertile in common sense practicable suggestions as to measures essential to securing proper and healthful development and immunity from many of the ills that result from a failure to appreciate the simple and easily observed natural laws on which health and normal vitality are dependent.

The style of the author is most attractive and if we mistake not adapts itself to the intelligence of all interested as well as emphasizing to the physician certain facts that he is too apt to pass by in his devotion to purely medicinal remedies.

Dr. Skene has had very exceptional opportunities to speak with authority on the malconditions of education and culture, and their remedy, and we predict for his views a wide reading both professional and popular.

A Text Book of Practical Medicine. Designed for the use of students and practitioners of medicine. Eighth edition, revised and enlarged, with 215 illustrations. By Alfred L. Loomis, M.D., LL.D., Professor of Pathology and Practical Medicine in the Medical Department of the University of New York. Published by Wm. Wood & Co., New York: 1889. pp. 1117.

Dr. Loomis' *Practice* is already well known to our readers. The frequency of the editions published bears testimony not only to the progress of medicine, but the appreciation of the profession for this excellent treatise, which rep.

resents the opinions of a careful and thorough teacher of medicine, whose views are the result of a wide and varied metropolitan practice.

The book has been revised and rewritten. About fifty pages have been added to it, the price, however, remaining the same. Important changes and additions will be noticed. Among these are "brief descriptions of the more frequent pathological processes, and a detailed statement of the methods employed in bacteriological study, with an enumeration of the distinguishing characteristics of those micro-organisms which at the present time are regarded as pathogenic. Several additions have been made to the list of diseases considered." A lithographic plate has been introduced into the portion treating of Bacteriology, which subject has been carefully discussed and brought up to the present date.

Notes and News.

A Symposium of Physicians on the Treatment of Headache.—At the suggestion of the New York Daily World, a lady reporter in their employ—a certain Miss BLY, who has since undertaken the sensational trip round the world in seventy-five days, or in less time than JULES VERNE'S imagination at its greatest flights fancied it possible—called upon several New York physicians, representing that she suffered from constant headache, with the ostensible view of exhibiting the differences of medical opinion. It appears, however, that the prescriptions, though differing in their ingredients, were all in line as to their object, though their authors chose to achieve it by different agents. The following were the prescriptions given:

℞ Reduced iron, 1 drachm.
Extract or nux vomica, 6 grains.
Arsenious acid, ½ grain.
Extract of gentian sufficient to make a mass to be divided into 30 capsules.
One three times a day, after eating.

℞ Exalgine, 50 grains.
Elixir cinchona bark, 2 ounces.
Take 2 teaspoonfuls in a wineglass of water after breakfast and dinner.

℞ Extract of digitalis, 5 decigrammes.
Extract of nux vomica, 4 decigrammes.
Arsenious acid, 3 centigrammes.
Bisulphate of quinine, 2 grammes.
Make into 20 pills. Take 1 pill four times a day as directed.

℞ Dilute muriatic acid, 5 grammes.
Take 8 drops in half a glass of water after the pill.

℞ Phenacetine, 5 decigrammes.
Dispense 10 such powders in a gelatine capsule. One capsule twice a day.

℞ Iodide of potash, 1 drachm.
Sulphate of magnesia, 2 ounces.
Divide in 16 powders.

℞ Blaud's pills (No. 4), 3 grains.
Take one pill after meals.

℞ Bromide of potash, 3 drachms.
Water enough to dissolve above.
Compound tincture of cinchona, 3 ounces.
Take in teaspoonful of water before meals.

℞ Tincture of nux vomica, 2 drachms.
Dilute muriatic acid, 2 drachms.
Syrup of ginger, 4 drachms.
Dilute phosphoric acid, 4 drachms.
Water of Gaultheria to make 4 ounces.
One teaspoonful to a tablespoonful of water after eating.

The Pathology of Scandals.—The N. Y. Record in a recent issue talks of the temptations to which the popular physician is sometimes subjected and the dangers of misrepresentation such doctors are exposed to through erotic female patients. It is said that the practice of medicine tends to promote intellectuality and mental equipoise, so that medical history is rarely stained with the records of misapplied confidence or scandalous violations of decency. Yet no one better than the physician knows how erring is human nature, and how full of temptations is the lot of any man who gains any degree of popularity or prominence. There exist in society a considerable number of men whose chief object in life is the gratification of lust, and who spend much of their time simply in devising ways of satisfying passion.

Such characters as SMOLLET'S Count Fathom exist plentifully to-day, though modern novelists hardly ventures to depict creatures so loathsome. These men are generally originally depraved; and modern alienists would place many of them among the moral imbeciles or paranoiacs.

But there are, unhappily, women of the same type; perhaps not so vicious, but much more weak. Large cities contain many of them, and they develop among the religious congregations as well as the audiences of theatres. When one of them is struck with an erotic passion for her favorite clergyman, or actor, or physician, there is trouble ahead; and if the man is indiscreet or has enemies watching, a scandal surely follows. One basis for scandals is insanely erotic women.

In justly estimating the merits of those cases involving the character of men who have lived lives without reproach, the pathological element of nymphomania ought to be considered.

In some other cases the scandal is but the evidence of incipient insanity, as in the case of a prominent lawyer who, in the early stages of paresis, went about making improper proposals to several of his respectable lady acquaintances. Scandal may be a sign of disease as well as of vice.

The Phonograph as a Universal Acoumeter.—According to the "Deutsche Medizinal-Zeitung," LICHTWITZ maintains that EDISON'S phonograph fills the requirements for an acoumeter. It is possible, he asserts, to arrange phonogrammes by means of which the hearing can be accurately measured. The phonograph can reproduce every sound and tone perceptible to the normal ear, including the inflexions of the voice; it repeats the sound without noticeable change, so that the acuteness of the hearing of different patients, and of the same patient at different times, can be accurately compared; it will reproduce with the same intensity and quality of sound the uniform phonogram, so that aural surgeons of all lands can compare their observations.

The operation of the apparatus is simple. The ear piece is applied to the ear which is to be tested, and a phonogramme which is audible to the patient is sounded. The acoumetric scale is then descended until a phonogramme is reached which can not be heard. This marks the limit of hearing for that ear. In this manner the source of sound remains always at the same distance from the ear, and only the intensity of the tone differs. If the phonograph will do all that LICHTWITZ alleges, and if it is practicable to create such a graduated series of fixed phonogrammes as he suggests—and we do not now see why such a plan may not be feasible—we may look forward to a great improvement on the present rather crude means of testing the hearing. All of the methods at present employed for this purpose are objectionable in that they do not furnish a fixed volume of sound in every case. The tone and intensity of the "tick" of various watches differ, and sometimes they vary even in the same watch. Still more unreliable for purposes of comparison is the use of the human voice, but the plan suggested is intended to furnish the same tone and intensity of sound in each case, and so to render observations more exact and permit of comparisons of observations in a manner not at present possible.—*N. Y. Med. Jour.*, Nov. 23, 1889.

A New Departure in Medical Publishing.—From the Philadelphia Inquirer, Dec. 1st, we learn that a new publishing company has been established in that city for the purpose of controlling under one efficient direction the present periodical publications of the University, and of establishing such new magazines as the needs of the institution may suggest.

The officers are: Stuart Wood, of R. D. Wood & Co., president; H. La Barre Jayne, treasurer and solicitor; A. L. Hummel, M. D., general manager; and the following Board of Directors: Provost Pepper, Joseph H. Cofrode, J. William White, M. D., Charles C. Harrison, Stewart Wood, H. La Barre Jayne, A. L. Hummel, M. D. (ex-officio), and G. E. de Schweinitz, secretary.

The capital stock is said to be $100.000. Arrangements, however, are being made for doubling this amount, and it is expected that in the near future the stock will reach $1,000,000. Among the stockholders, in addition to the officers, are Joseph D. Potts, Thomas Dolan, D. Hayes Agnew, M. D., Samuel Dickson, H. C. Wood, M. D., Edward Martin, M. D., John Marshall, M. D., dean of the veterinary department of the University; James Tyson, M. D., dean of the medical department; John H. Musser, M. D., George I. McKelway, M. D. and Samuel D. Risley, M. D.

The addition of six publications to the two now issued under the auspices of departments, the University Medical Magazine and the Political Law Series, is already assured. The new journals will be the University Magazine (literary), the University Legal Magazine, the University Veterinary Magazine, the University Biological Magazine, the University Psychological Magazine, and the University Hygienic Magazine. At least four of these publications will appear by January 1, when the new organization will begin operations.

Doctors as Beggars.—The physicians of Chicago are trying, we are told, to establish a public library for the benefit of the profession. They first tried to get the City Library to make sufficient provision for their wants, but failed; and they had equally poor success with the trustees of the Newberry Library. Now the doctors have ceased trying to get other people to give them a library, and are taking hold themselves. Already $10,000 has been raised. We commend the spirit thus shown, and trust that our brethren by the lake will succeed in getting a great library. It is a good plan for the profession to take care of itself just as much as it can. We have always heretofore looked to outsiders for help in building hospitals, colleges, laboratories, and libraries, with the result that the doctor in most of these institutions is but a minor factor in their management. The medical profession deserves public help in its purely scientific and benevolent work; but it can do a great deal more for itself than is sometimes supposed.—*Medical Record.*

Cooling of the Body by Spray.—DR. S. PLACZEK, following up some laboratory experiments by PREYER and FLASHAAR, on the effect of spraying a considerable part of the

body surface of animals with cold water, has applied the spray for the purpose of reducing febrile temperatures in human beings. In the case of a man suffering from phthisis, whose temperature was high, he found that by spraying about a pint of water at between 60° and 70° F. over his body, the temperature fell to normal, and continued so for several hours. Again, a similar method was satisfactorily applied in the case of a girl with diphtheria. In the healthy human subject the spray lowered the temperature nearly 2°, and in animals which had been put into a condition of septic pyrexia by injections of bacteria the temperature was reduced to normal by the spray. By keeping healthy guinea-pigs and rabbits some hours under spray and using from half a pint to a pint of water at the temperature of the room—44° to 62°—the temperature of the animals fell several degrees.—*Lancet*, Nov. 1889.

Therapeutic Brevities.

Lozenges of Pyrethrum and Pilocarpine for Relief of Dryness of the Throat and Mouth.—I have used with much satisfaction, for the relief of the uncomfortable sensations of heat and dryness which characterize many acute and chronic affections of the mucous membrane of the mouth and throat, a lozenge made arcording to the following formula:

Fluid extract of pyrethrum, 2–3 minims.
Pilocarpine hydrochlorate, $\frac{1}{2\frac{1}{2}}$ grain.
Pure extract of licorice, 2 grains.
Powdered acacia, 2 grains.
Glycerin, 1 minim.
Sugar, enough to make 20 grains.

The lozenge is allowed to dissolve in the mouth, and one is used every two, three, or four hours, as may be indicated. Should more frequent use be necessary, the quantity of pilocarpine should be reduced. The addition of two grains of ammonium chloride will often be beneficial in sub-acute inflammatory conditions of the mucous lining of the respiratory tract, while in more chronic affections two or three minims of the oleoresin of cubebs will serve a good purpose. The lozenge has a pleasant pungency, and its effect in keeping the parts well moistened is quite marked.

Speakers and singers have told me that the use of a lozenge just before lecture or performance has made it possible to do work comfortably which otherwise would have caused much pain and fatigue. It is possible that a little extract of coca might be advantageously added for special occasions of this nature.

The lozenges are dispensed under the name of *trochischi pyrethri et pilocarpinæ*.—Solomon Solis-Cohen in *Med. News*, Nov. 16, 1889.

Notes on Hoang Nan in Diseases of the Skin.—In an article on hoang-nan, in the Medical Bulletin for November, Dr. J. V. Shoemaker, writing of the employment of this drug in syphilis, says: When it is judicious to do away with mercurials and iodides, I have found much satisfaction in the employment of hoang-nan. It may be used alone or combined with iron and quinine, or, if need be, cod liver oil. This tonic treatment of syphilis is, I believe, too much neglected. I have not the slightest intention of detracting from the value and the necessity, in the vast majority of cases, of the approved mercurial or mixed plan of treatment, yet I am firmly convinced that there are times when this plan is harmful instead of beneficial, and to recognize such periods in the progress of the affection is no less necessary than to make the diagnosis that the disease is actually preent. In fact, the recognition, when to vary the specific by a tonic course, is a sound evidence of the physician's power of discrimination.

Hydrastis in Membranous Dysmenorrhœa.—Dr. Franz Jordan relates in a Hungarian medical journal an interesting case of most obstinate membranous dysmenorrhœa in which, after many years had been spent in trying all manner of different methods of treatment, hydrastis canadensis rapidly effected a cure. Dr. Jordan employed the liquid extract of hydrastis canadensis, twenty five drops of which he ordered twice a day. This very soon began to produce an appreciable effect, and after a short time the medicine was required only at the time of menstruation, or for a few days previously, the loss of blood becoming very slight, and the pain disappearing altogether.—*London Lancet*, Oct. 19, 1889.

The Value of Condurango.—Wess is a great advocate of condurango, a medicament which had been abandoned under the pretext that the results which had been obtained with it in cancer were not very brilliant; the author adds that condurango has very valuable stomachic properties, and it is for this property that it should be prescribed for certain affections of the stomach—catarrh, dilatation, ulcer, etc. The form in which Wyss prefers to administer it is that of the fluid extract, in doses of 10 to 10 drops in a half-glass of water one hour before eating. The results obtained with the aid of this medicament in impaired digestion are also very satisfactory.—*La Clinique*, Sept. 26, 1889, p. 616.

Medical Progress.

The Treatment of Insomnia.—Jastrowitz (Berl. klin. Wochenschr., 1889, No. 27, 634) considers insomnia, for the sake of convenience of study, as an essential disease, for whose treatment there is, therefore, an *indicatio morbi*, an *indicatio causalis*, and an *indicatio symptomatica*.

Under the first division he discusses briefly the nature of sleep, rejecting the dynamic theory that sleep is a passing into a condition of rest of those parts of the brain which preside over consciousness and voluntary procedures. The mechanical theory rests on the distribution of the blood throughout the body; and as regards this, it seems likely that the old view (that during sleep there is an anæmia of the brain) is the correct one. The subject is, however, by no means clear, and it is not certainly known whether the sleep produces the cerebral anæmia or *vice versa*. The measures

often directed to the production of sleep by diverting the blood to the periphery, such as warm baths, etc., sometimes are very useful, sometimes fail altogether. The chemical theory supposes an auto-intoxication by some hypnotic substance produced in the muscle as it grows tired. A similar substance, however—sodium lactate—when ingested does not produce sleep, though it is known that procedures which form lactic acid or its salts in the organism dispose to sleep. Such are exercise in the open air, or in institutes for the milk or whey treatment.

In considering the *indicatio causalis*, a distinction must be made between those causes which act directly on the brain, preventing sleep, and those acting indirectly. In the first class are diseases of the brain, as well as excessive mental work and excitement of the emotions. In focal cerebral lesions, surgical interference is sometimes of value in curing the sleeplessness, in all others, symptomatic treatment is also to be employed, since the removal of the cause, as in overwork of the brain, is not followed by relief of the insomnia. Even long-continued emotion—passive, as care, or active, as fear, revenge, etc.—without excessive mental work, may produce insomnia; and in the treatment of it it is necessary to remove the patient from his surroundings by travel, and to aid the cure by wine, bromide of potash, and paraldehyde. When insomnia is due to the combination of emotion with overwork, the treatment is far more difficult. These patients must for months or years be withheld from work, and, if possible, at first be confined to the house. The Weir-Mitchell cure, electricity, and in many cases phenacetin, are of no value. So also is a cold water cure in the mountains.

Among indirect cases of sleeplessness may be included conditions which produce, somewhere in the body, pain or disturbances of circulation, diseases of the blood, and the entrance into it of substances foreign to it. The *indicatio causalis* in these cases is, to remove such causes as working late at night, the use of coffee, tea, tobacco, etc., and intoxication with arsenic, lead, and mercury. Indirect insomnia is often found in general diseases. Here the diminution of the bodily temperature is often of value, or, in diseases of the circulatory apparatus, the use of means which will regulate it. In the insomnia of chronic diseases, many causes operate. Thus, in diabetes, the hunger, thirst, and the desire to urinate, interfere with sleep. In diseases of the kidneys, insomnia is often the first indication of interstitial nephritis and of uræmia. But in all these chronic diseases the *indicatio causalis* often cannot be filled.

Symptomatic treatment must, indeed, be employed in all cases, and narcotics and sedatives have been principally used. In the choice of these, the drug, the disease, and the individual, are to be considered, as well as whether the insomnia is acute or chronic. If acute, the remedy must be prompt and harmless; but if chronic, quickness of action is not so important. A harmless drug is one which is not dangerous in small doses, does not irritate the digestive tract, produce congestion of inner organs, or diminish the strength of the heart. In chronic insomnia its continued administration should not in any way injure the organism. It is, indeed, best to avoid narcotics as far as possible. Since the need of sleep varies greatly with different patients, and the hours in which sleep is the soundest and most beneficial are not alike throughout the night, it is evident that these and other circumstances must influence the choice of the remedy and the time of its administration. As sleep must be obtained in the most natural way possible, the belief must be aroused in the patient that he must go to sleep, the muscles must be relaxed by proper position, and the room should be darkened. A proper external temperature is important, the best being 10° to 14° R. A local condition of cold, as in the case of cold feet, is a great interference with sleep; though keeping the head cool is an advantage. The sense of hearing may often be made of value producing sleep; a soft, monotonous sound being useful for this purpose. The action of hypnotism is not to be undervalued.

Among the drugs used for the treatment of insomnia, the first to be mentioned is alcohol in its different forms. In the severer varieties of chronic insomnia, and especially in persons disposed to alcoholism, it is best to avoid it, but in the lighter forms it is often very useful. Opium and morphia are excellent hypnotics, and produce sleep most like the refreshing natural sleep. Caution must be exercised in conditions of congestion and in weakness of the heart. The formation of the opium habit must also be guarded against. In children, bromide of potash is to be preferred. Hydrate of chloral is the strongest hypnotic, but is dangerous in large doses. It is excellent in delirium tremens, status epilepticus, and in convulsive disorders. It is, however, to be avoided in heart disease, hysteria, cases in which there is difficulty in breathing, and in those persons in whom it produces no initial stage of excitement, and especially no alteration of the pupil. Paraldehyde in long-continued or large doses gives rise to a condition resembling that produced by alcohol. It is of value in hysteria, alcoholism, acute insomnia, the itching of jaundice, etc. As it is eliminated by and irritates the lungs, it is contraindicated in bronchial conditions. Its action is good in cardiac asthma; bad in emphysema and arterio-sclerosis. It is not to be used in chronic insomnia and in conditions of extreme excitement, but is of value in insomnia from moral causes and in the restlessness of epileptics. Amylene hydrate disagrees with the stomachs of many patients and produces slight swelling of the hands and face. It is given in the insomnia of all diseases; also to allay cough. Sulphonal acts slowly, and is consequently not of service in acute disease and to allay pain, but is valuable in conditions with motor unrest. After prolonged use it produces dizziness and a sensation of ataxia.

In comparing the pure narcotic strength of these drugs they may be arranged in the following descending scale: Morphia, chloral, amylene hydrate, paraldehyde, sulphonal. If, however, thep are arranged in the order of the proper hypnotic and uninjurious dose, they stand: Chloral, sulphonal, amylene hydrate, paraldehyde, morphia.—*Amer. Jour. of Med. Sciences*, Dec., 1889.

SOME OF THE RECENT APPLICATIONS OF MENTHOL.—It is only within a few years past that menthol has been used to any extent in

medicine, and even now its employment is rather restricted—more so, perhaps, than its merits deserve. What these merits are, and in what condition menthol has been found to possess some curative properties, it may be profitable briefly to consider.

The most familiar employment of this camphor is as a local application for the relief of pain, and menthol cones are prepared and sold in the shops for this purpose. The relief obtained by such applications is usually but temporary, yet in some of the milder forms of facial neuralgia and so called rheumatic pains the remedy is of real service. In pruritus also the analgesic properties of the drug have been turned to good account. It is employed for this purpose in ointment, spirit, or liniment, in the strength of from one part in twenty to one part in ten. A very good preparation for this purpose is that recommended by Eloy, of a solution of fifteen grains of menthol to one ounce of forty per cent. alcohol. Still another use for the remedy, as externally applied, is in the treatment of furunculosis, and more especially of furunculosis of the external auditory canal. Here the bactericidal properties of the drug, as well as its analgesic action, come into play. Dr. Cholewa has made trial of menthol in these cases and commends it most highly. He applies it by means of a pledget of cotton moistened with a twenty per cent. solution and inserted into the canal. The application is said to cause a little smarting at first, but this is soon succeeded by entire relief of pain and a speedy subsidence of the inflammatory process.

Ringworm of the scalp is said by Dr. Malcolm Morris to yield more promptly to applications of menthol than to any of the ordinary remedies employed for this purpose. One part of menthol, four of chloroform, and twelve of olive-oil is the formula recommended in such cases.

In the treatment of various affections of the upper air-passages, also, good results have been obtained by local applications of menthol in the form of solution, vapor, or spray. Rosenberg and others have claimed quite a large percentage of cures of laryngeal phthisis by this means. In this country Potter, Knight, and others report very decided improvement after the use of menthol in this disease, but they have not observed any actual recoveries. In nasal and pharyngeal catarrh much benefit is often derived from sprays of menthol dissolved in oil or fluid vaseline in the strength of from one in twenty or thirty percent. In hay fever William Hill, of London, has found menthol to serve an excellent purpose as a substitute for cocaine. He applies a ten or twenty per cent. solution in olive- or almond-oil to the sensitive area within the nose by means of a brush or atomizer.

In the chronic bronchitis of old age Nyes speaks favorably of inhalations of menthol, which, he says, not only facilitate and rapidly diminish the expectoration, but also allay the cough and reduce the number of paroxysms. These inhalations have also been used with good effect in whooping-cough. Finally, the same mode of application has proved useful in Jores' hands in relieving asthma. He reports a case for which all the usual and most of the unusual remedies had been tried unsuccessfully. Inhalations of a twenty per cent. solution in olive-oil were then tried, with the most satisfactory results—the rattling râles disappeared almost immediately and the respiration soon became normal.

Menthol has not yet been employed to any great extent internally, although it is said to act efficiently when so given in controlling certain painful affections. Dr. C. L. Dana has so employed it, with fairly satisfactory results, in migraine, supra-orbital neuralgia, and anæmic headaches. The dose for internal administration is from fifteen to sixty grains per day. These are some of the uses to which this drug has been applied, though they are by no means all. If the effects obtained should be found to be uniformly produced, we might well be justified in placing menthol among the most valuable of the minor therapeutic agents.—*N. Y. Record.*

Toilet of the Funis.—Farmers and others engaged in the care of stock are familiar with the fact that cows and mares in giving birth to their young dispense with the formality of ligating the umbilical cord. At the critical moment, the animal assumes a standing position, the calf or colt drops to the ground with a "thud," the cord snaps, and the hæmorrhage, if any, is very slight.

Visiting the Sisters' Hospital in New York a few years since, I observed that after the cord had ceased its pulsations the nurse frequently cut it, without applying a ligature. On being questioned as to the safety of leaving the cord in that condition, one of the sisters pleasantly replied: "The circulation of blood in the cord had ceased before I cut it, and there can be no hæmorrhage where there is no circulation. Besides, it is the design of Nature that after birth the circulation of blood in those vessels should no longer continue."

I decided to experiment in this direction, and have kept a record of fifty cases treated without ligating the cord. My reason for discontinuing the record at the fiftieth case is that my success has been so uniform and gratifying that I now regard it as a "fact," and no more worthy of record than the special manner in which, on that particular occasion, I choose to deliver the placenta.

My first experiment was with a vigorous child (boy) of a hearty, muscular colored woman. The labor was easy and natural, the child cried lustily, and the cord was pulsating strongly. One minute after the delivery of the child, I cut the cord at about its middle. The hæmorrhage, profuse at first, rapidly diminished, and I believe it would soon have ceased altogether, but as the mother at that moment demanded my attention, I forcibly compressed the cord, when the hæmorrhage at once ceased. I afterward cut the cord at the usual place without a ligature; no untoward results followed.

The next case was a feeble female child of an ill-nourished, over-worked woman. The cord was pulsating very feebly at the birth of the child. I compressed it firmly at about one inch from the umbilicus, and one minute after I cut the cord, without applying a ligature, and there was no hæmorrhage.

The following eight cases (in the record) were treated in substantially the same manner. If the cord was pulsating strongly, I waited until the pulsations began to grow weak, then I would compress the cord firmly, and in about a minute after would cut it without the appli

cation of a ligature. On no occasion was the hæmorrhage sufficient to demand attention. At this time I devised a little instrument (about as large as a half-ounce vial) with which I clasp the cord at the proper place, compressing it; a concealed knife cuts the cord, and the instrument locks, compressing the cord tightly. (No patent on this instrument.) My manner of using it now is as follows: After the child is born, I usually wait until the pulsations of the cord become weak; then I apply the instrument, which tightly compresses the cord and cuts it, as the drill sergeants say, in one time and one motion. When I remove the instrument, I touch the cord with a wad of cotton wet with a strong solution of ammonio ferric alum. After the child is washed, I again apply the same solution to the cord.

I think that the above-mentioned procedure has many advantages. Should the child, after birth, require resuscitation, the clasp can be applied much more quickly than the cord could be cut with the scissors, for there is not the slightest danger of including the fingers, toes, penis, etc., in the clasp, and the time usually lost in finding and applying a ligature is saved. Should the mother be threatened with convulsions or post-partum hemorrhage, or should any untoward event demand the immediate removal of the child, it is accomplished with the least possible delay. Besides, the cord, strongly compressed by the instrument and wet with the iron alum, is flattened, shriveled, in size reduced to a minimum; there is no clumsy ligature with a double knot to be turned by a careless nurse so as to compress the right lobe of the liver. Also, the application of the styptic effectually destroys a hotbed of septic infection and nidus for the omnipresent microbe. Hereafter I will put my catgut, carbolized, and iron-dyed ligatures "where they will do the most good," which certainly is not encircling the umbilical cord—Dr. F. A. Rew, in *American Med. Jour.*

Chaulmoogra Oil in Syphilis.—We have recently had several opportunities of testing this agent in syphilis, and have formed as a result a very high opinion of it.

Mr. C., of San Francisco, had been in the hands of a leading homœopathist for about three months for what appeared at first to be a case of gonorrhœa, but which in a few weeks manifested unmistakable signs of secondary syphilis. There were copper-colored eruptions an the skin, mucous patches in the throat, fever, induration of the inguinal lymphatics, loss of strength, emaciation, headache, and sleepless nights. Though phimosis was present, an indurated spot upon the left side behind the corona glandis felt through the prepuce indicated the point of initial lesion. The pressure of the prepuce caused considerable local difficulty, owing to the "fiddling" plan of treatment which had been employed, that of attempting to remove the difficulty by injecting remedies backward under the tight foreskin.

After slitting the prepuce, thus removing the tension, the local symptoms improved speedily, but the woful state of the general health demanded immediate attention. The patient had slept but an hour or so a night for several weeks, had suffered with intense headache all the night through time and time again, and his system was evidently breaking down under the aggravated condition of affairs.

We have no faith in the iodides in such conditions as this. They add to the debility and can accomplish no real good except perhaps to satisfy the patient by the suppression of the eruption, as iodide of mercury sometimes will. Iodide of potassium, as usually employed, is impotent for good, and cannot afford even apparent benefit here. Mercuric bichloride may have a place in minute doses in the latter stages of syphilis, but not here, and even the ordinary vegetable alteratives of our older materia medica have no place in such a condition.

Jamaica dogwood enabled the patient to rest tolerably well at night, administered as follows:

℞ Sp. m. Jamaica dogwood, ʒ i.
Glycerinum, q. s. ad. ʒ ij.

M. Sig. Take a teaspoonful every two hours, beginning at six o'clock in the evening and continuing until sleep follows.

But to lessen the fever and headache, banish the eruptions and mucous patches, soften the indurated lymphatics, and restore the general system from its anæmic state, the following was prescribed, and not without avail:

℞ Tinct. oil gynocardia, ʒ i.
Syr. stillingia comp., q. s., a. d. ʒ iv.

M. Sig. Take a teaspoonful before each meal and one at bedtime.

Speedy improvement followed upon this prescription, and though the patients hair fell out very badly afterwards, all other symptoms became ameliorated. The anæmia lost its marked character, the distressing headaches were banished, and the cutaneous eruptions became less prominent, while the wasted muscles rounded up again to something like a normal condition—all this within a few weeks after beginning treatment, and condition still improving.

Mr. W., after passing through the primary stage of syphilis, became subject to vegetations upon the prepuce, which threateued to soon disfigure the affected part beyond recognition. Nitric acid applications failed to make any satisfactory impression, until the administration of twenty drops of tincture of oil of chaulmoogra in water four times daily was begun, when soon after a rapid disappearance of the growth was remarked.

Mr. A. applied for treatment for syphilis early after the primary sore became manifest. The chancre was indolent, and hard at the base —Hunterian—and there was painless enlargement of the lymphatics and slight tumefaction of the fauces. Tincture of chaulmoogra oil was given for several weeks; no cutaneous eruptions, no appreciable fever, no headache, no emaciation. In fact, the patient has thus far passed through the secondary stage without the manifestation of any tell tale symptoms except to the practiced eye. Meanwhile the inguinal lymphatics have softened considerably since the beginning of the remedy.

We believe it is the best known remedy to control the early onset, and lessen the gravity of later manifestations.—*California Medical Journal*, Oct., '89,

TREATMENT OF WHOOPING-COUGH BY EUCALYPTUS SPRAY.—During an epidemic of whooping-cough which occurred last year in this district, I was induced by the continual failure of the various popular remedies, such as alum, belladonna, atropine, etc., to effect cures, to try the effect of the oil of eucalyptus. The extraordinary power of infection which is characteristic of this disease—due no doubt to the ease and rapidity with which the infected particles are thrown off in the act of coughing, and are carried to the air passages of others more or less susceptible—suggests to us that that the true remedy for this disease is one of an antiseptic nature. This fact has been recognized for some length of time, and carbolic acid has been used for the purpose in various forms, with more or less success. But it must be ackhowledged that not only is carbolic acid an imperfect antiseptic, for Ringer tells us that "no satisfactory proofs exist of its capability to destroy the contagious elements of disease," but it is a dangerous drug even in a diluted form to be left about amongst children and nurses. Its offensive smell to the majority of people, and its unpleasant associations, render its use for any length of time undesirable. Eucalyptus oil is, on the other hand, a powerful antiseptic, being more than three times as strong as carbolic acid in preventing the development of bacteria, has not the caustic properties of the latter, and does not produce that irritation which the latter does, even when diluted, on the lips or mucous membrane. In combination with terebene the oil forms a mixture having a pleasant aromatic odor, somewhat similar to sandalwood, exercising a sedative influence on the lining membrane of the air passages, and possessing, besides antiseptic properties, the power of destroying the virus of the sputum, which is not only found clinging to the thickened and congested mucous membrane of the epiglottis, larynx, and bronchi, but is with every fit of coughing ejected by the mouth, with the possibility of infecting others. The sputum being crowded with bacteria and micrococci, it is upon the destruction of these with their extraordinary power of development and multiplication that our success depends. For this purpose I use the following mixture as a spray:

Oil of eucalyptus, ʒ ij.
Terebene, ʒ ij.
Rectified spirit of wine, ℥ iss.

When used, the spray machine is held at a short distance from the mouth, which is opened to receive the spray. I generally order it to be used half an hour before each meal and at bedtime, thus ensuring a constantly ozonized breathing atmosphere. Internally I give terebene in drop doses to a child of from one to three years of age in combination with two grains of carbonate of magnesia and ten minims of compound tincture of camphor to one or two teaspoofuls of water, repeated every three hours. The two former constituents to be triturated together, the magnesia being used simply as a carriage for the terebene, which is not miscible with water. The paregoric allays the irritabitity of the cough until the disease succumbs to the specific treatment. The machine I usually recommend for spraying is an ordinary odorator. A cheap form is one represented in Fig. 183, Sec. VI., in Maw's Catalogue, and can be used either with or without bellows. In every case where the above treatment hos been properly carried out I have effected cures in about a fortnight. About a week after the characteristic "hoop" has become developed the paroxysms gradually become reduced in frequency and violence, until they cease to be noticed at all.—Wm. W. Hardwicke, M. D., M. R. C. P., etc., in *Lancet*, Nov. 2, 1889.

OIL OF WINTERGREEN IN RHEUMATISM AND GOUT.—During my two years' residence at the Stockport Infirmary, I used a liniment composed of equal parts of olive oil and oil of wintergreen, locally, in forty cases of rheumatism. In the acute cases it was painted over the joints, and in the chronic ones it was well rubbed into the affected parts. After the application of the oil, the joint was wrapped in cotton-wool and lightly bandaged. This liniment eased the patients very considerably, and several of them went to sleep after its use; in the majority of cases, pain ceased for some five or six hours after its use. The internal treatment was salicylate of soda; in the acute cases large, and in the chronic small, doses of this drug were used. I alluded to these cases in a short letter I sent to the Hospital Gazette about eighteen months ago, and later in the British Medical Journal. Since that note was written I have used it in several cases more, so that I have tried it in considerably over a hundred. I rarely use it in acute cases now, preferring simply to lightly cover the joints with cotton-wool; when the pain is *very excessive* I recommend a little of the oil to be applied.

In chronic cases, however, I use the oil of wintergreen very extensively in the following formula, which is very similar to the old one except that I add a little soap liniment, which seems to increase its powers.

The oil of wintergreen is very satisfactory, and in almost every case gives relief, and I have only notes of four who did not derive any benefit from it. One female patient could not use it on account of the smell, but none of the others objected to it

I have lately used the oil for acute gout, but only in six cases, having it painted over the joint, or, if the patient could permit it, having it rubbed in. After my last article I had a few letters from practitioners asking where the oil could be procured, and the price. I believe it can be procured at any wholesale druggist's; Ferris, of Bristol, quotes it at a shilling an ounce, but it must be remembered that, although it is very expensive, still one does not use much, my prescription being:

Oil of wintergreen, ʒ ij.
Olive oil, ʒ iij.
Soap liniment, ʒ iij.

and a very little of the liniment is used, especially as I caution the patients against using too much, and, if the rheumatism is limited to one or two joints, I recommend applying cotton-wool after its application and then bandaging. I hope in another article to publish the experience of some other medical men with the oil of wintergreen.—James D. Staple, M.R.C.S., L.S.A., in *Hospital Gazette*.

GONORRHŒAL RHEUMATISM.—In the Normandie Médicale for September 1st, M. Buffet publishes some interesting observations upon this subject. He calls attention to the fact that the affection fails to follow the classic type, as regards its being confined to single joints and attacking the large joints only. On the contrary, it affects the small joints as well; and may invade other tissues—such as the sheaths of tendons, the muscles, nerves, and areolar tissue. There is much in common in this disease with acute articular rheumatism. Several joints are successively attacked. But there is not the same mobility, there is no appreciable fever, no profuse perspiration, and no urinary changes. The form of disease under consideration lasts longer than classic articular rheumatism, its duration sometimes extending over months. Resolution is not the only termination. There may be ankylosis, complete or partial, and muscular atrophy. It may terminate in rapid suppuration, as in a case cited in which death ensued in eight days as a sequence of suppurative inflammation of the knee. One attack affords no protection against a second, several patients suffering from three or four attaaks; which causes Jaccoud to predict for the unfortunate victim of gonorrhœa with articular manifestations a repetition of his woes should he chance to contract gonorrhœa again. This author also maintains that the treatment of the gonorrhœa present is without influence upon the development of the articular affection. The amount of discharge appears to bear no relation to it, either. And salicylate of sodium is positively without any effect whatever.

The physician's first duty is to place the limb in a good position, in view of possible ankylosis. As to other measures, revulsives and blisters are chiefly of value. When the effusion is abundant, the joint may be puncutred. Tonic treatment is always indicated—quinine occupying the first place as a remedy—for the depression is great. Massage, sulphur douches, and electricity are useful in combating stiffness of the joints and muscular atrophy. To sum up: Gonorrhœal rheumatism may be confined to one joint, but may attack several joints. Small joints may be affected as well as large ones. Tendinous sheaths may be invaded as well as muscles, nerves, and cellular tissue. The clinical defference between this and ordinary articular rheumatism consists in the absence of fever and perspiration, and the fixity and duration of the lesions. The disease may terminate in ankylosis, suppuration, or muscular atrophy. Treatment consists in a good position for the limbs, revulsion, massage, and electricity. Salicylate of sodium and anti-gonorrhœal remedies are without effect. Tonics are indicated.—*N. Y. Med. Journal.*

IMPERFECT INTESTINAL ABSORPTION AND ITS MANAGEMENT.—Among the most certain and satisfactory of chemico physiological tests is that of the absorption rate of the intestines. This test was first described by Professor Ewald, in 1887, when he detailed a number of experiments which showed that salol was insoluble in the gastric juice, but that it was decomposed into its constituents, when, after passing into the small intestine, it was subjected to the action of the duodenal contents. Very shortly after absorption into the circulation it passes through the kidneys, and is eliminated in the urine as salicylurie and sulpho-carbolic acid, its presence being demonstrated by the production of a red-violet precipitate when the urine, after acidulation with hydrochloric acid and shaking with ether, is tested with a solution of perchloride of iron.

Tests make by Ewald in 39 cases showed the presence of the reaction in the urine:

After 30 minutes in	.....		1 case.
" 45 "	"	.....	32 cases.
" 60 "	"	.....	6 "

Dr. Eccles (The Practitioner, October, 1889), repeated Ewald's experiments on fifty patients, and detected the salol components in the urine.

After 25 minutes in	.....		3 cases.
" 30 "	"	.....	2 "
" 45 "	"	....	42 "
" 60 "	"	.....	2 "

Thus it may be considered established that the average time required for salol to pass into the duodenum, be decomposed and pass through the kidneys, is forty-five minutes.

Now in muscular weakness of the stomach, and in disease of the intestines, this time is greatly delayed, and by studying cases with the help of the salol test, the rate of improvement and the efficacy of remedies may be estimated.

Dr. Eccles has attempted to measure the value of abdominal massage in conditions of impaired digestion and absorption by the salol test.

In two cases in which the reaction was not obtained until an hour after injection of ten grains of salol (the amount always used in the test), abdominal massage was performed once daily for fifteen for a week with no result. General massage was then done daily for forty-five minutes, for a week, when the salol was detected within half an hour after its indigestion.

Two cases of tropical diarrhœa and two of dilatation of the stomach were treated by general and abdominal massage daily. In one case treatment had to be abandoned, but in the other the rate of absorption, or gastric movements, which had been abnormally slow, was brought nearly to normal, with corresponding improvement in the condition of the patient.

It may be considered proved that by vigorous and persevering massage intestinal absorption and the peristaltic activity of the stomach are improved. Whether this mode of treatment has a special value and reaches cases which could not be helped by other means, remains to be established.—*Med. Record*, Nov. 16, 1889.

INCOMPATIBILITY OF CERTAIN ANTISEPTIC SUBSTANCES.—The Archives de Pharmacie points out the incompatibility of the following: Corrosive sublimate and iodine; corrosive sublimate and soap; carbolic acid and iodine; carbolic acid and permanganate of potash; iodine and soap; salicylic acid and permanganate of potash; permanganate of potash and oil; soap and glycerin.

The Medical Age.

Vol. VII. DETROIT, DEC. 26, 1889. No. 24

Original Articles.

PUERPERAL ECLAMPSIA.

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Puerperal eclampsia involves that peculiar variety of convulsions seen only in the puerperal state. They may take place at any time during the period of utero-gestation: but occur oftener during the latter months of pregnancy; most often during the process of labor: sometimes after its completion.

They have been fancifully classified by some writers in three forms: the hysterical, the epileptic, and the apoplectic—upon certain grounds which I cannot regard as tenable.

It is true that epilepsy may occur in any parturient woman, and at any time during the parturient state. And it is equally true that hysteria not infrequently accompanies that condition of nervous exaltation and irritation common to the period of pregnancy.

Nor is there any reason why a woman *enceinte* may not be seized with an apoplectic fit, at her work, or asleep, or in labor, or at any other time.

But eclampsia gravidarum is a disease *sui generis*—a disease with its own symptomology, its own etiology, and its own obscure and uncertain pathology.

Epilepsy, whilst it sometimes gives warning by a kind of an aura which an intelligent patient will recognize as premonitory and precursor of an instant attack, yet, as a rule, seizes its victim of either sex, at any time and at all seasons.

But eclampsia occurs only in the female—and only in the parturient female, and, (as its synonym in the Greek signifies), "flashes its light" in the patient's eyes, for hours may be for days, before the outburst of the storm—a signal which she does not understand, but which brings clear, marked, and definite information to the accoucheur who may be on the outlook.

A persistent headache in the gravid woman, especially if it occur during the latter months of pregnancy, or at the inception of labor, tinnitus aurium, amblyopia, flashes of light alternating with partial blindness, numbness of the hands, imperfect memory, and especially if these symptoms be followed or accompanied with œdema of the face, scanty secretion from the kidneys, or the presence of albumen in the urine, indicate as clearly as certain signs in the heavens betoken the tempest, the coming on of that most fearful and most dreaded of all the complications of the puerperal state—puerperal convulsions. It is true that the first convulsion simulates an attack of epilepsy very strikingly. But apart from that peculiar cry of the epileptic, which often inaugurates the attack, and which I have never heard in puerperal eclampsia, the convulsion itself presents to the eye of the observer certain characteristics not seen in the case of the ordinary epileptic.

When the eclampsia is immediately announced in the puerperal woman, the spasm for twenty seconds, perhaps or more, is of a tonic or tetanic character, as evinced by the fixed eye, the contracted pupil, the drawing of the orbicularis oris causing the simulation of a smile, the tension of the cervical muscles bringing backward the head, the swelling of the jugulars, the suspension of respiration. After this there is sudden and complete relaxation, a long stertorous or hissing inspiration; and clonic convulsions of the whole muscular system ensue, especially violent in the face and upper extremities. This may continue for a minute or two, rarely longer at first attack, when the convulsive movements suddenly cease, and the patient falls into a deep sleep, for a day or an hour, or greater or less time according to the intensity of the cause, the susceptibility of the subject, or the efficacy of the treatment; after which the same phenomena may be repeated.

If convulsions occur before full term, and unprovoked by uterine and recurrent pains, a day, perhaps many days, may elapse before another attack; and I have seen instances in which there was no repetition of the disease, even when labor supervened. Usually, however, there are from one to twenty attacks during twenty-four hours, unless labor is sooner ended. Some authors report as many as seventy a day, and one writer (DEPAUL) as many as 100, that is one about every eight minutes. I have seen one case in which they were almost continuous for twenty-four hours, or rather, in which, after the first six or eight regular convulsions, the muscular clonic spasms of the whole body were continuous—more nearly resembling a case of exaggerated chorea, with

unconsciousness—and so constant and so powerful that I saw two physicians fail, after an half hour's trial, to hold the patient still enough to get her under the influence of chloroform. Indeed, it was impossible to hold her at all, except at the risk of breaking her neck. For this same reason we could neither effect delivery by forceps or by turning, and had simply to lay down our arms and confess to defeat. The most wonderful part of the story is, that the baby was eventually born, without hurt, after this long and tumultous labor, and the mother made a good recovery except of her vision: she was blind for several days before labor set in and for several weeks subsequently. There was no sort of renal deficiency in this case, but rather an excess in the quantity of urine, though it was loaded with albumen and casts. These gradually disappeared under treatment, and, at the end of six months she could see well enough to go about and attend to her domestic duties. I took her, at that time, to a specialist of repute in a neighboring city, and asked for an examination of her eyes and for glasses. He at once recognized the yellow discs on the retinal field, and, without any knowledge of the history of her case, pronounced it Bright's disease; undoubtedly a correct diagnosis. She is alive, however, now, at the end of four years; is well, and has vision sufficient to read coarse print, and to do her own sewing.

After the history of such a case, I cannot accept the prognosis of Dr. LUSK, which he formulates from the reports of the New York Board of Health from 1867 to 1875, viz., one death in every eight cases of puerperal eclampsia.

The prognosis, in all cases, is certainly very grave, but the average mortality, I think, has been exaggerated. I am sure it has not been so high as that in my own cases.

The disease is one fearful to look upon, and one which excites our liveliest apprehensions, not only of present danger, but of future evil; yet, after the most violent and persistent convulsions, the woman often falls asleep as soon as labor is terminated, and will sleep two days if undisturbed, when she will awaken, a little sore and shaken up, with no serious results following, and will enter at once the road to rapid convalescence.

Puerperal eclampsia is rated by most writers as a rare disease—the percentage of cases being about one to every 500 labors. Here, too, my experience differs from that of recorded authority. In my own cases there has been nearly one in 300.

I have referred to the uncertain and obscure pathology of the disease. I think I have not stated this condition of uncertainty too strongly. We can state, perhaps, with some degree of assurance, that there is generally some renal deficiency in the majority of cases of eclampsia gravidarum—an insufficiency often associated with the presence of albumen in the urine. Dr. LEVER, as far back as 1842, in Guy's Hospital Reports, called attention to this fact. Soon after, it was noted by a number of observers; and FREIRICHS in 1851, and BROWN five years later, accumulated such an amount of supposed evidence to the same effect, that medical men began to believe that eclampsia was little else than uræmic intoxication. Subsequent observers, however, and notably SEYFERT, with most extraordinary opportunity for investigation in the great Maternity Hospital at Prague, reported a number of cases disproving this heretofore accepted theory. SEYFERT alone reported 70 cases of parturient women suffering with nephritis, and only 2 cases of eclampsia amongst them.

Then followed the theory of a ferment in the blood converting urea into carbonate of ammonia—FREIRICHS still in the lead,—then the TRAUBE-ROSENSTEIN theory of hydræmia in all pregnant women, taken up by ANDRAL and subsequently disputed by LOHLEIN who failed to find, in 19 examinations of the cadaver, more than one case of œdema or anæmia of the brain.

Of course, it has been long known that convulsions will ensue on conditions of extreme anæmia of the brain. This has been observed in the cases of animals and soldiers dying of hæmorrhage, and had been the subject of demonstration by BROWN-SEQUARD many years ago. But if the subjects of puerperal convulsions, with very few exceptions, ever exhibit any evidence of anæmia during life or death, the observations of other medical men have been widely diversent from my own. Indeed, for what class of patients do we fear this terrible complication in our obstetrical cases? Do we apprehend such danger for the pale, the enfeebled, the anæmic, or for the robust, the plethoric, the red-blooded, the full of habit? What class of patients, here in this country at least, in the experience of all people, learned and unlearned, professional and unprofessional, are usually the subjects of convulsions during labor? Who fear it for themselves? And for whom do careful and loving friends fear it? Truly, there are some questions which common sense can answer as correctly as science.

And yet another theory has been advanced in reference to the etiology of eclampsia, viz., that the pressure of the gravid uterus upon the kidneys, and the obstruction to the renal circulation thus occurring, brings about the result of deficiency in the secretion from these organs, and the consequent accumulation of urea in the blood. But if pressure of the gravid womb be capable of producing such serious results, why should not the pressure of an ovarian

or other abdominal tumor produce similar results? Has any such case been recorded?

And yet another theory has been published, viz., that eclampsia and albuminuria are both the effect of the same cause, and that one is not the sequence of the other; that both are due to the circulation in the blood of a certain insidious and toxic element, not yet determined—referring, I presume, to the *microbe of eclampsia*. This, however, has not yet been captured or cultivated, according to the latest reports on bacteriology to which I have had access.

To me, the most plausible explanation of the relationship between albuminuria and the condition of pregnancy—for that there is some relationship in the majority of cases, we must all admit—lies in the fact demonstrated, I believe, by FRANKENHEUSER, of the direct connection between the ganglia of the kidney and the nerve filaments of the uterus by means of the sympathetic system.

In searching the brain or spinal marrow with microscopic lens, as if for ocular proof of organic cause of every deviation from normal function, the modern physician seems in danger of ignoring all eccentric irritation as *casus mali*. In eclampsia infantum, how seldom is the seat of the trouble in the nervous centres? How often elsewhere—in a tooth, for instance, in process of eruption; in the stomach; in the colon?

And so of puerperal eclampsia, we seem to forget that it occurs only in the parturient woman, oftener in the primipara, or in cases of doublets, or of foot or hand presentation, or other complication of labor giving rise to extraordinary irritation of the womb; in other words, creating unwonted eccentric irritation. We seem to lose sight of the additional fact, that the parturient woman, and especially the primipara, is often in a condition of mental, moral, and physical excitability, awaiting her time in the prospect of a new, untried, and fearful danger; that her womb, fretted and oppressed with an unused and wearying burden, is straining to throw it off,and telegraphing its troubles to the brain, already, itself, sharing the general alarm, if not poisoned and intoxicated with uræmic blood. And what can be the result but an explosion of neurotic force finding its vent in the convulsive throes of eclampsia!

Treatment.—When the puerperal woman is under the care of a regular medical advisor, he will, of course, visit her during the latter months of her pregnancy,and satisfy himself as to any signs of impending trouble. He will especially inquire if there be any renal deficiency, if there be any constipation, headache, abnormal vision or blindness, will observe if there be any œdema of the face or extremities, and will test the urine for albumen. If one or more of these symptoms be present, he will institute the treatment promptly, without awaiting any nervous explosion. He will put the patient on plain digestible fare, will forbid any worry or excitement of mind or body, will regulate the bowels with an occasional dose of blue pill followed by Rubinat water or Rochelle salts, or some saline laxative; will direct the daily use of Vichy or Lithia water—or even the acetate of potash and infusion of digitalis, if the kidneys be particularly torpid. On the occurrence of headache, or of wandering pains in the back or extremities, he will direct a dose of antipyrin every three or four hours until relieved, or if the urinary secretion be well established, will inject a sixth of a grain of morphia and one hundred and eightieth grain of atropia under the skin, and repeat this treatment as often as is necessary to afford relief.

But if, in spite of all precautionary measures, nervous symptoms ensue, and eclampsia be threatened or occurs, he will reduce at once the amount of circulation through the brain by venesection, administer thirty grains of chloral and thirty of bromide of potassium by enema, and await results. How long? Until labor sets in? Or shall measures be at once adopted to inaugurate that event and to hasten the delivery of the child? These are questions difficult to answer, and each physician must decide for himself the line of practice most appropriate in each individual case. I believe that the majority of men favor the conservative plan of awaiting the inception of natural labor. Speaking for myself, there are few cases in which I would not prefer to wait. I have on several occasions regretted inducing premature labor, and on more than one occasion, when present as physician or consultant, have had cause to fear that the patient lost her life from shock incident to the rapid dilatation of the *os uteri* by the fingers of the accoucheur and delivery by turning. So confident am I of this, that I will never again be responsible for the practice of hastily and rudely entering the womb and removing its contents.

When labor has already fully set in, then, under the relaxing effect of chloroform and chloral upon the patient, especially if their exhibition be preceded by venesection, the physician will not have long to wait. Turning, or delivery by forceps, affords then an easy solution to one indication, viz., the removal of the eccentric and provoking cause of the convulsions.

The entire causes, the plethoric condition of the blood vessels, and the consequent pressure upon an enlargement of the brain, the hydræmic condition of the blood which exists in some cases, the uræmic poison which corrupts it in other instances, may, one and all, demand

our attention, especially in a patient who has not been subjected to any previous treatment, but to whom the accoucheur has been instantly summoned in the hour of danger. In such cases, I regard bleeding as the sheet anchor of safety, and the lancet our hope and stay.

I found this the treatment when I came upon the stage of practice, more than three decades ago. I followed it then, and in all the vicissitudes of theory and changes of practice which have occurred in that time, I have never changed my opinion or swerved from my course.

On the 17th day of July, 1851, just thirty-eight years ago, and soon after I put up my sign as a solicitor of practice, I was called to see a woman thirty years of age, expecting to be confined of her second child. She was very robust, and plethoric to a degree not often seen. Quite an intelligent midwife was with her who said that she was summoned to Mrs. H. four hours before, and finding her with headache, and partially blind, had opened a vein and bled her four teacupsfull, or about sixteen ounces. I found her restless, delirious, blind, moaning, with head, face, and extremities swollen and livid. The nurse said that she had a slight convulsion before we saw her. I at once re-opened the vein and took thirty ounces of blood *pleno rivo*.

On examination, there was no evidence of labor having set in, and another doctor was summoned for consultation. During the hour that I awaited his arrival, she had two most violent convulsions. On his coming, we determined to bleed her again, thirty-two ounces more, and to await the supervention of labor before interfering with delivery. I was left with her for the night. This was at 5 o'clock P. M.

I applied evaporating lotions to the head, opened her bowels with an enema of spirits of turpentine, and remained by her until morning. She rested fairly well, having had only two slight attacks during the night.

On the following morning, July 18th, at 9 o'clock, labor pains commenced, and within an hour she had several most violent convulsions, and became entirely unconscious.

Another physician was now summoned, a man of large experience and national reputation. On examination, the os was about the size of a silver dollar, but rigid and unyielding, and the head was felt presenting. The patients face was livid, temporals and jugulars swollen, pulse 100, hard and full, and you would not have supposed from her appearance that she had lost a drop of blood. The big doctor ordered the vein to be again re-opened, and bled her forty ounces, then an enema containing thirty grains of assafœtida and thirty drops of laudanum. For two hours more the patient had no further attack, was unconscious, but quiet, except during the pains of labor, which now progressed very satisfactorily, and we concluded not to interfere. At the end of the fourth hour Mrs. H. had two most violent convulsions in rapid succession, and was delivered *per vias naturales* of a living child.

During the two hours subsequent to delivery, she had several slight attacks, but under another enema, of musk, morphine, and assafœtida, she soon fell into a profound sleep, and had no more. In two days she recovered her sight and consciousness, and had a rapid and complete recovery. In reviewing the case, we found that she had lost 116 ounces of blood by venesection in forty-eight hours, besides a pretty profuse flow during the third stage of labor. This treatment seems to at least border on the heroic. For myself, an excuse might be made that I was very young and inexperienced. But I had the counsel and assistance of older and better doctors. And I have now to say, after an enlarged experience of thirty-seven years, that I have no apology to offer for my practice. More than that, I did nothing then which I would not do again under the same circumstances. I omitted then that which I would not omit now, viz., the use of chloral by enema, and of chloroform by inhalation. But this occurred nineteen years before LIEBRICH had given us the great hypnotic and antispasmodic, that incomparable remedy for reflex irritation in the nervous centres. And whilst SIMPSON had used and suggested the use of anæsthetics in natural labor, no man, to my knowledge, had used it on this side of the Atlantic, and my old preceptor had published his anathema upon any student or physician who would dare to attempt it.—It contravened the law of God, who had declared as punishment for primæval sin, that woman, in pain and labor should bring forth her offspring.

Now, both chloral and chloroform are daily remedies, placed in juxta-position, powerfully auxiliary to the lancet, and sometimes superceding its use.

Of course, I have never seen another woman from whom I could, or would, take 116 ounces of blood in forty-eight hours for any malady; but I have seen very few whom I could not, and did not, bleed very generously in eclampsia gravidarum.

I have unfortunately met with a great many cases of puerperal convulsions in my practice, more, I have sometimes thought, than my share; and whilst I cannot claim with CHAILLY-HONORE, that I have saved eighteen out of nineteen with the use of chloroform, and without venesection; or, with Professor BAUM, that I have saved all of my cases with chloroform alone, yet I will guarantee as good a record as can be found in any clinical history of private or public practice, in this country.

32 Union St.

THE HEADACHES OF GROWING CHILDREN—A CLINICAL LECTURE.

BY PROFESSOR AUGUSTE OLLIVIER, PARIS, FRANCE.

GENTLEMEN:—Six years ago, one of our colleagues, who with rare clinical judgment devotes himself to the diseases of children, Dr. RENE BLACHE, endeavored, by a series of carefully conducted observations, to obtain some light upon the vexed question of headaches during the period of growth. We have here one of those expressions which were introduced into the phraseology of medicine, one knows not when, nor by whom; we take them on trust just as our predecessors have handed them down to us, because of their convenience, and because, by reason of their wide applicability, they render us less liable to mistake than many terms of narrower signification. A child of from twelve to fifteen years has habitually a dull, heavy, aching feeling about the head; this is aggravated under the influence of slight causes—a hearty meal, sitting up too late at night, a fatiguing run in the open air. He is growing and has headache; it is then the headache of the growing period. But if we attempt to divine what is the pathogeny in order to institute a precise and rational treatment, we find ourselves liable to flounder among such questions as these: Will the child continue to suffer from headache when the growing period is over? If the little patient be a girl, will she be rid of her headache when the menses appear? If the patient be a boy, will these headaches cease about the time of puberty? Or, on the contrary, is not the headache one of the elements of a malady which will manifest itself at the adult age under a graver aspect? Should we respect this headache, or leave it to itself? Is it possible to cure it? The very fact that the medical practitioner will put such questions as these to himself, goes to show how uncertain and how wavering must be his diagnosis.

M. BLACHE has proved, in reality, and I am going to attempt to give still more weight to his proofs, that there is no sufficiently well defined disease that we can call the headache of the growing period. From the age of ten to fifteen, children have headache oftener than at any other period of life, and it is a consequence of numerous causes which it is possible to remedy or suppress.

M. BLACHE has seen children who ceased to have headache after the continuous employment of convex glasses; a proof that the headache was of functional origin, and in direct relation with the accomodation. If we recall the cases which we have observed at the polyclinic, and which have been called the headaches of growth, we shall see that generally after the examination we gave another name to the headache, and treated it according to our more precise diagnosis, and generally with success.

There came one day to our clinic, a girl of thirteen years, well developed, even large, for her age. For six to eight months she had been suffering from an almost continuous frontal headache, presenting at certain moments paroxysms which resembled attacks of migraine without digestive troubles. It was the headache of growing time, people said. But this child was pale, emaciated; she had a soft systolic murmur at the base of the heart, a *fremisiment cataire* and *bruit de diable* in the vessels of the neck: we had plainly to do with an anæmic patient whose dyscrasia had developed in conditions sufficiently well determined. Her parents were poor; she worked hard on a meagre diet; all the symptoms were referable to inanition. We took her in the hospital and put her on a good diet, giving wine, quinine, and iron, and in a month her color returned, the headache disappeared, and she was able to quit the hospital.

On another occasion, there was brought to our clinic a little boy of twelve years, who was working hard to pass his primary examinations. Unhappily, an almost continuous headache was so annoying that as soon as he began to read he was obliged to leave off. Finding no cause sufficient to account for his condition, we desired to put him to the test, and placed a book in his hands; we saw him presently begin to knit his eyebrows in a very comical position and make muscular efforts in order to be able to continue reading. Our confrère, Dr. VELADE, examined the refraction and showed that there existed a degree of hypermetropia rare at this age. The cephalalgia was a simple phenomena of asthenopia; it had no relation whatever to growth; if the child had been a clerk in a store or a plough-boy, he would have had no trouble with his head. I need hardly tell you that he was cured by the use of convex glasses.

Hypermetropia renders persons especially liable to headaches from over-taxing of the accommodation.

We must, then, exclude from the category of headaches of growing time the headaches of inanition and ametropia.

A girl of twelve years of age, who was brought to us a little later, complained of a sensation as though her temples were hoop bound; her physician had given her quinine without relief. This child's mother had had attacks of convulsive hysteria; the father was very nervous; the little patient was intelligent, but more impressible than is usual at that age. I made her quit study, prescribed bromide and cold douches which were administered at the hospital, then sent her to the country. At the end of two months she returned cured and the headache has not since returned.

Here is a fourth patient afflicted likewise with this pretended headache of the growing time. It is a little boy aged seven years; he belongs to a family in which there exists no diathetic defect apart from neuropathy. Parents and grandparents have been subject to nervous ailments. The mother presents all the symptoms of non-convulsive hysteria (choking sensations, the ball in the throat, tendency to syncope, etc.).

This child was nursed at the breast; its dentition took place without accident save a scroto-femoral erythema whose outbreak corresponded with the eruption of each tooth. Small-pox at five years; measles at six and a half; incontinence of urine till the age of three years. Sleep has always been disturbed, but never interrupted by waking up with starts. Only the child would talk in its sleep of things with which it had been occupied during the day.

Since the age of three and a half years, this boy has been subject to headaches which come on in paroxysms twice or thrice per week, and which last several hours. At the same time, he has become quite nervous.

The first of March last, it was noticed that he was more excitable than usual. Although he had headache, he insisted on going to school in the afternoon. After a couple of days, he came home suffering still more, having a little fever. He was put to bed and began to wander, and his delirium appeared to be accompanied with illusions and hallucinations—he saw hideous animals, etc.; later, he got to sleep; the next morning he was better, but with no remembrance of what had happened. There seemed to be no sufficient cause for the attack.

This child is, as you see, thin, and quite tall for his age; he has an animated look, is of sprightly and intelligent aspect, the right half of his face is less developed than the left, the palatine arch out of shape, and the occipital protuberance very prominent. The cephalalgia is not continuous; it manifests itself by crises, two or three times a week. Exceptionally it provokes nausea, but is never preceded or accompanied by eye troubles.

I am sure, gentlemen, that you have corrected the diagnosis first made, and that you are convinced that the headache of growing children is a near relation to nightly terrors, false chorea, and certain nervous coughs; that it is, in a word, an hysterical manifestation. And this is my view. If we succeed in demonstrating that cephalalgia is frequent in hysteria, and that the latter is not rare in childhood, that by its characters, its onset, its march, the headache which we have observed in our two patients resembles that which we meet with in many adult hysterics, we shall have come near giving the proof of what I have just advanced.

Briquet has had a good deal to say about the headache of the hysterical. He has noted it three hundred times in three hundred and fifty-six cases. In seventy-two of these the headache was frontal; in sixty-eight, it was fronto-temporal; in twenty-two it was temporal (bilateral); and in eighteen it was unilateral, generally on the left side.

The study of hysteria of early life is of so recent date that it is hardly touched upon in most of the standard treatises on diseases of children; I have only found precise details respecting this juvenile hysteria in the books of two of my colleagues, Descroizelles and Jules Simon.

In hysterical children, cephalalgia presents itself under two conditions; sometimes it is part of a characteristic sum of symptoms; this was the case with the little boy of whom I have just spoken. His sleep was habitually disturbed; he was the subject of a semi-somnambulism in which were reproduced in part the scenes in which he had been occupied during the waking hours; he raved about his tasks at school, and repeated his lessons in his sleep. One day, without any known cause, he had fever, a restless delirium accompanied with hallucinations; his parents feared, though without reason, that a grave disease had set in; the next day all was over, and he was able to resume his usual tasks. The headache dated almost from his first infancy; it returned by paroxysms several times a week; if we add the antecedents of the case, we have, if not a complete picture, at least a totality that is significant. In other patients, we find at the same time as the headache, nervous aphonia, local anæsthesia, etc.

But it may happen that the headache is isolated, initial in the morbid cycle; it is a precocious manifestation. The other symptoms of the diathesis will come later if they come at all; for I believe, gentlemen, that with due prophylactic precautions—the nature of the case being well understood—it is quite possible to break up, if not nip in the bud, a developing hysteria revealing itself in early childhood. It is difficult to recognize the true signification of this isolated cephalalgia. This was the case with the little girl of whom I have spoken; we had to be guided by the extreme impressibility of character and the antecedents. We cannot find even in the pain the elements indispensable for the diagnosis. There is only one cephalic pain that is pathognomonic; the name (more expressive than just) of *clou hysterique* (*hysterical nail*) has been given to it; but it is far from being the case that all headaches of the same origin present the same precision in their localizations, the same acuteness in their course. There are headaches that are gravitative and slow, headaches in which the head seems hoop-bound as in migraine, or in which

the head from the forehead to the temples, or even the occiput, seems expanded and ready to burst.

Headache, then, is a frequent symptom of hysteria; some of the multiple manifestations of this neurosis are not rare even in infancy and childhood. As for the two little girls of whom I have just spoken, everything leads us to believe that the headaches from which they suffered were due to hysteria. In the case of the first, a medicament which often succeeds in headaches, sulphate of quinine, did not produce any result; we treated her on the assumption that the headache is hysterical, and she got well in a couple of months. In the case of the second, the congeries of symptoms were sufficiently characteristic.

We have had before us to-day five cases of children that had long been suffering from headache. The headaches were not alike, and did not develop in the same manner nor under the same conditions. One was a constant sufferer; another had headache only when he read; the little girl aged twelve years complained of feeling as if she had an iron hoop around her temples; the little boy of seven had been suffering for four years with weekly attacks of migraine. The clinical aspects of these headaches offer, then, numerous varieties; and notwithstanding this, people give them the same name, and attribute them to the same cause, namely growth. It would have been more correct to attribute them to inanition, hypermetropic asthenopia, and hysteria. Must we, then, reject peremptorily the traditional expression? Are there, in reality, any headaches due to the fact of growth? I would not dare to affirm that such is not the case, but it seems to me that very often what has been ascribed to growth is due to insufficiency of nutrition. To attain to physiological conditions, it is necessary, almost from day to day, during the season of rapid growth, to modify the daily rations so as to conform to the exigencies of the developing organism. What is sufficient for an infant is not sufficient for the child; nor is the young child's fare exactly that of the adult. Moreover, it sometimes happens that in less than a year the stature, and the size of the organs, undergo modifications hardly to be believed. Let dyspeptic symptoms supervene; let the child live in an establishment where the quantity and the quality of the food is invariable; let the child be constantly in motion, over-given to study, or to the irregularities of the nutritive equilibrium; let severe physical and intellectual efforts be added, and the young subject will be in the best possible conditions for inanition, anæmia, (and their consequences), to take place. During the active periods of development, children are more liable to suffer from the action of certain influences than at other times, but as a general thing it is often possible to prevent these injurious influences from effecting their mischief.

In fine, there are certainly more headaches during the season of growth than at any other time; it is, however, doubtful if there is a headchea of growth, properly so called.

FLORIDA FOR CONSUMPTIVES.*

BY HERBERT C. JONES, M. D., MAROA, ILL.

In this latter part of the ninth decade of the present century, one who reads the current literature of the medical profession cannot long ignore the existence of a little light-weight champion, known as a micro-organism; and a veritable David has the little fellow proven to all the Goliaths of etiology.

Little, perhaps, did KOCH realize, when he announced his discovery of the bacillus tuberculosis, the clamor which would follow—the host of imitators who would rise up and flood the world with a fit successor to the humoral pathology of a past age—one that bids fair, in the near future, to be fitly named the *humorous* pathology. But even if it is universally conceded that the presence of these tiny intruders in the animal economy are responsible for "all the ills that flesh is heir to," we are still under the necessity of besieging the enemy, and finding means to dislodge and destroy him without detriment to the fortress in which he is intrenched.

The practical question, with all these theories or demonstrations—if that is a better word—is, how much do they help us in the treatment of disease? Is phthisis any less the dreadful foe of mankind than in the anti-bacillian days? If KOCH'S discovery has been supplemented by a safe and practicable destroyer of the bacilli, then it is idle for me to urge the claims of a climatic remedy. But we know it has not. We are still met with the difficult problem of deciding what to do with the victims of a well nigh incurable malady. Shall we, who practice medicine in this belt of the temperate zone where sudden changes and wide extremes of temperature subject them to the greatest risks, advise our phthisical patients to remain here and depend upon the virtues of cod-liver oil and hypophosphites? Not if we would unselfishly do our whole duty by them!—I allude now to the class who can afford the luxury of change of climate. Many cannot, and, until the world's charitable institutes are strong enough to provide, as has been proposed, for their wholesale removal to a more genial clime, such must remain and battle with the enemy on his own ground.

Is there a physician here to-day who has not

* Read at the Fourteenth Annual Meeting of the District Medical Society of Central Illinois, held in Decatur November 12, 1889.

breathed a sigh of relief, when, after carrying a patient with pulmonary disease through the winter, he has reached the bright settled weather of June, and realized that the sufferer might now breathe the fresh air, and bask in warm sunshine, with a reasonable hope of a new lease of life, for a few months at least? Gentlemen, there *is* a land, not far enough away to be inaccessible, where June days are the rule the year through, and where snow and ice and sleet never come. If you do not want your phthisical patients to go to "a land that is fairer than day," better send them to a land that is fairer, climatically at least, than this.

Am I assuming too much in claiming, that climatic influences offer the only rational hope for the consumptive? A recent reporter of a treatment by inhalations of vaporized mercury and iodine, naively remarks: "I cannot forget that grass has not yet grown on the grave of gaseous enemata." Alas yes! Peace to its ashes! although it was always *in bad odor*, even before its untimely demise. We know as well that the grass has grown on, and the cold winds of doubt and distrust have blown over, the last resting place of all other vaunted specifics, save only the latest born.

In this domain of special therapeutics among these frail children of the brain, the infant mortality is great.

A recent editorial, in the Jour. of the Am. Med. Association, on Home Treatment for Consumptives, says: "So uncertain are all means directed to the local treatment of pulmonary tuberculosis, even WEIGERT'S hot air inhalations (save the the mark!), that the greatest hope of arresting the disease lies in its proper climatic management." Also, in the concluding paragraph, "for medical skill has not yet found means of sucessfully coping with consumption."

But many, who grant these conclusions, have pet theories as to the benefits of high altitudes, and they send patients to the mountains of Colorado, or elsewhere. For summer residence these places doubtless have their advantages, though who can say that the rarefied atmosphere, by its stimulation of the pulmonic circulation, does not afford temporary palliation of the dyspnœa at the expense of the patients reserve force, and render him less capable of returning, as he must sooner or later do, to ordinary atmospheric conditions?

That the overtasked brain worker and sufferer from nervous exhaustion will derive great benefit from a temporary sojourn in the mountains, no one will deny. The vigorous physical exertions which the surrounding conditions favor, will stimulate lungs and heart to their utmost effort and revitalize the whole organism; but when the lungs themselves are the seat of an inflammatory process, will you not retard that process by forcing them into too vigorous action? It is not thus that the skilled machinist treats damaged machinery. Rather let us secure for this piece of human machinery such climatic surroundings as are most conducive to repose and moderate action. These conditions are most perfectly supplied in the West India Islands, perhaps; but it is not practicable to send our home-loving Americans to foreign shores, and, moreover, it is out of harmony with the "spirit of our institutions."

Florida is not offered as an ideal climate, but the best within reach.

One given to theoretical investigations and the study of statistics, would doubtless give a more scientific and technical thesis on this subject. My knowledge of it is based chiefly on personal observation, having spent seven years of my life in Florida, and six years of that time in the section known as South Florida. I know, therefore, whereof I do affirm, in saying that hundreds—and it could as well be thousands—annually find in that favored clime renewed health and length of days, who in their Northern homes had been hurrying with visible speed toward that "bourne from which no traveler returns." Assuming for Florida only its admitted mildness and equability of climate, gives it a prominent, if not a first place, among our therapeutic resources in chronic pulmonary disorders.

So catholic an authority as the Encyclopœdia Britannica says: "Equability of climate in Florida renders it, except in the vicinity of swamps, one of the healthiest, if not *the* healthiest, State in the Union."

Its death rate, even with its annually added invalid population, is as low as the lowest. It is reached more quickly, with less expense, and (what is often of vastly greater consequence) less fatigue, than the Pacific coast. Its population, largely recruited from the North, is as hospitable, as cultured, and as companionable, as any people with whom it has been my fortune to visit or reside.

The section with which I am most familiar, lies between the 26th and 28th parallels of latitute, and in that region snow was never seen The morning temperature in January and February ranges from 40° to 60° (Fahrenheit); at noon, from 50° to 60°; and in the evening, 50 to 80°. The minimum temperature, during my residence there, was 26° at four A. M., and at breakfast time the mercury was again above the freezing point. With only a single exception, in fifty years the mercury has never at any time remained below the freezing point for twenty four hours in that section of the State.

As to humidity, intelligent observers concede that it is a dry climate. The so called rainy season is during the months of June, July, and August, when rains occur almost daily; but in effect the rainfall, though heavy at times, is

only as showers here, since the porous soil and semi-tropical sun speedily dispose of any surplus moisture. The surplus is soon dry, and the roads are the best after the heaviest rain. The soil of the section named is a sandy loam —perhaps I should add more sand than loam, as compared with the fertile soil of central Illinois. But poor as it appears, and little as you could do with it here, under the genial influences of that clime it supplies your tables with the most luscious fruits—oranges, pineapples, bananas, pomellos, grapes, strawberries, etc., and furnishes the Eastern markets their early vegetables. Furthermore, let it not be forgotten that Florida is the largest State east of the Mississippi River, and has in its broad territory a diversity of soil and productive capacity. It leads all Southern States in the production of sea-island cotton, and, in many sections, the cereals and tobacco are profitably grown. These facts are relevant because the incipient consumptive who can, should go to Florida to remain, if benefited, for a term of years, and few are content to live in idleness. Many have secured land, which is cheap, and, while gaining health, have grown an orange grove, the sale of which more than repaid all their outlay.

The surface is comparatively level, though undulating; dotted here and there with spring-fed, clearly defined fresh water lakes, varying in size from a few acres to many hundreds. The unimproved land is covered with forest, principally of pine, interspersed here and there with oak, bay, magnolia and cypress. As a rule, there is very little under-growth, so it is possible to ride or drive in any direction. The lake water is clear and cool, and never covered with scum such as we see on ponds in this country. These lakes are generally used as the family bath-tub, almost throughout the year. I need not say to this intelligent Society, that inquiry as to the reputed danger of alligators would excite shouts of derision from any small boy in Florida, if he did not retort by asking if the fish bite the swimmer in Northern waters. This allusion to the small boy suggests the thought, which I would not omit, viz., the effect of Florida climate on children. Whatever faults it may have in other respects, Florida is a "Paradise for children." Such perfect freedom from the ailments of childhood I have never seen elsewhere. Croup and diphtheria are practically unknown, and of the other diseases none are more common than here, with the possible exception of dysentery, and that I have never observed except from preventible causes. My own two children, after a continuous residence of over two years, have yet to experience their first sick day, a record they never equaled for a single winter in Illinois. As to accessibility, the West India Fast Mail route carries through cars from New York City, every day in the year, two hundred miles up the St. John's river, and thence diagonally across the state to Tampa, on the Gulf coast, passing some of the most attractive resorts in the State; among others the attractive New England village of Winter Park, with its elegant Seminole Hotel, and Congregational College, surrounded by churches and winter homes of wealth, culture, and refinement. At this last named place, my home for the past two years, we receive the New York morning papers at 6 o'clock on the evening of the day following publication. The St. John's river is now bridged at Jacksonville so that trains run through to St. Augustine, always a place of historic interest, and now rendered more attractive by possessing the finest hotel in the world, and others quite good enough for the purse of the average tourist. Stimulated, perhaps, by the munificence of one millionaire, another wealthy New Yorker is building a mammoth fire-proof hotel, at St. Augustine, five hundred feet in length, which promises to rival even the Ponce de Leon, at Tampa. These palaces, however, the average invalid will be content to view from the outside chiefly, but there are innumerable places where accommodations may be found at rates to suit his purse.

Perhaps it would not be doing my subject justice to conclude without a reference to the epidemics of 1887–8. Until Time's kindly hand has removed the ecchymosis, I admit the State must make its bow before a suspicious Northern public with a damaged optic. But I assure you it was the old story of Sodom and Gomorrah. The "whale" of commercial greed had swallowed the "Jonah" who should have been prophesying that the sanitary "wickedness" of a few cities would bring trouble upon them—and it came.

Well, the result has been sad, though the State is clean. Wise counsels prevailed. a State Health Board was created, a competent Health Officer appointed, and, as a result, no fever this year, and a confident feeling for the future.

Though living midway between the infected places last year, and subjected to some little inconveniences by quarantine regulations, I saw no unusual sickness, but on the contrary, exceptional healthfulness, which was the rule throughout the State except in infected places. The health seeker need not be influenced by idle fears. Be sure all reports at this distance are exaggerated. Moreover, yellow fever is a disease of summer, exclusively, and confined almost invariably to seaports and their immediate environment. It is also, pre-eminently, a filth disease. Winter visitors are in no danger whatever, and those who locate for a few years should seek the high pine land of the interior, where there is no danger at any time.

In conclusion, while admitting the failure of Ponce de Leon's search for the spring of perpetual youth, permit me, as a champion of Florida, to assert that he conclusively demonstrated its non-existence by showing it could not be found within the bounds of this attractive and health renewing State.

HYPNOTIC SUGGESTION IN THE TREATMENT OF ORGANIC DISEASE.*

BY WM. WAYNE ASHURST (UNIVERSITY OF PENNA.), PHILADELPHIA, PA.

Gentlemen:—In asking your attention this evening to a few words upon a topic in the line of the therapeutist's practice rather than of the surgeon's, I yet feel that I have not passed entirely the confines of what may be interesting and appropriate to us as members of this Society; for the surgeon's duties must inevitably in many cases embrace the treatment of disease otherwise than by operative interference. A few minutes, therefore, devoted to discussing the value of hypnotic suggestion as a remedial agent in organic disease, may not be altogether misspent and wearisome.

Many therapeutists have admitted that suggestion may be of great service in the treatment of functional disease, at the same time denying that an organic trouble can be in any degree benefitted by it—holding the ground that there is a complete and radical difference in the nature of these two kinds of disorder. The distinction they make is this: that in the organic type there is a physical alteration, an abnormality in the material structure of the tissues; but that in the functional disorder the morbid symptoms exist without any physical change in the body to account for it. This, however, would seem an unwarranted assumption —ground surely far too insecure to safely base upon it a limitation to the powers of a remedy so great as suggestion has proved itself.

It is universally conceded that all processes are inseparably connected with tissue change, —are the result of a chemical decomposition of the constituent elements of the body. Thus the phenomenon of the transmission of an impulse upon a nerve fibre may be explained in the following manner: An irritation of a portion—one cell of a fibre—causes a chemical change of some sort to take place there with the production of an irritant compound; this new substance brought in contact with an adjoining cell, causes there also an irritation and a repetition of the phenomenon that took place in the first cell; thus—from cell on to cell—the impulse travels over the whole length of the fibre.

In the cells presiding over the higher nervous phenomena—those which constitute the intellect,—similarly, each thought, each memory, each wish, accompanies and results from a chemical disintegration of these highly specialized cells.

Since every vital process is thus dependent upon a physical alteration in the organism,—since every symptom is the manifestation of a chemical change.—every morbid symptom must be the result of an abnormal chemical condition of some part of the economy—a morbid tissue change. In other words, a functional disease is but an organic one in which the lesions—the material changes—are so slight as to escape the observer's closest scrutiny. But there can surely be no alteration from the normal function without a preceding structural alteration—however slight—in the organ whose duty it is to perform this function.

Since, then, the difference between functional and organic disease is one of extent, merely, and of the perceptibility of the accompanying structural changes that a method of treatment yielding such great results in one will prove entirely futile in the other, is an opinion no longer tenable.

It may be, however, that when the lesion is very extensive, the diseased organism has become so crippled in its resources that even were the economy at large placed in circumstances most favorable to the exercise of its power of repairing diseased tissue, so little of this is left that the best treatment will be but palliative.

But is it not reasonable to hope that a morbid organic process amenable to any treatment will be at least influenced in the direction of repair by hypnotic suggestion; doubtless, if sufficient time were available that the rapid course of the disease might not outstrip the slower progress of the remedy, and could the suggestive impression be made of sufficient intensity, the most extensive and obstinate organic disease would thus be cured. So that failure to obtain a cure by the application of the "*therapeutics of the imagination*" can be due only to the patient's own susceptibility to suggestion.

* Read before the D. Hayes Agnew Surgical Society.

Ricord's Liberal Bequests.—According to the Lancet, the will of Dr. RICORD gives to the Paris Academy of Medicine ten thousand francs for the establishment of a biennial prize which shall bear his name. A like sum is left to the General Association of Medical Men in France. Five thousand francs have been bequeathed to the Society of Surgeons to found another biennial prize fund. To the Hôpital du Midi he has left his extensive library as a memento of his half-century of work and interest, and it is in contemplation to change the name of the hospital so that it shall henceforth bear the name of RICORD.

The Medical Age.

A SEMI-MONTHLY REVIEW OF MEDICINE.

B. W. PALMER, A. M., M. D., Editor.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

DETROIT, MICH., DEC. 26, 1889.

Editorial.

THE PREVAILING INFLUENZA.

That this affection is at present epidemic and very generally distributed over the East and West is apparent from the cases reported in the medical journals and the interest manifested by the daily papers. It seems symptomatically to be a combination of hay fever and bronchial catarrh, with a more rapid course, and occasional grave complications.

There is nothing at all new about the influenza itself, but an epidemic which overspreads Europe like a great wave, setting Paris and Berlin topsy-turvy at once, and almost producing a suspension of business, is something a little more surprising than an ordinary epidemic of colds. It has been some little time, indeed, since the like phenomenon occurred; the last severe epidemic of *influenza Europæa* is recorded as having taken place in 1849. But in the eighteenth century there was no less than ten of these epidemics. The Italians, who gave its English name to the influenza (the French call it *la grippe*), finding no reason in Nature or in conditions of life for this disease, ascribed it to the influence (*influenza*) of the stars.

The present epidemic, like almost all other epidemics, comes from the East. We heard of it first in Ekaterinburg, and no doubt it would be traceable thence to Astrakhan or Samarcand. From Ekaterinburg it went to Moscow, St. Petersburg and Berlin, and thence to Paris. The rapidity with which it spreads is something marvelous. Even in the days before railroads it has been known to overspread the whole of Europe in six weeks and then travel to America. Fortunately, the present visitation is classed as "benign" by the physicians. "Benign" in one of the doctors' odd words, and in this case it means merely mild, just as "laudable pus" means something comparatively and not positively praiseworthy.

From a recent editorial resumé of the history and character of this affection, appearing in the New York Medical Record, we gather the following facts:

The disease travels rapidly, so that we may expect an arrival here before our winter months are over. It used to be thought that this epidemic moved in definite cycles of one hundred years. Although such an idea has been long abandoned, yet it is a curious fact that the influenza prevailed in America one hundred years ago, and Dr. JOHN WARREN, in a letter to Dr. LETTSOM, says that "our beloved President WASHINGTON is but now recovered from a severe and dangerous attack of it."

In 1830 an epidemic started in China, reached Russia in January, 1831, and by May had spread to Western Europe; but it only reached this country in January, 1832, and then prevailed but slightly.

Another and severer epidemic started in Russia in December, 1836; within a month it appeared in London, and rapidly spread over Europe. This time, America was not affected. An epidemic of considerable extent prevailed in the United States about ten years ago, and there have been various mild manifestations of the disease. On the whole, however, North America does not seem to be very favorable to the development of epidemic influenza in its worst forms, and it is unlikely that we shall have a severe visitation, if we have any at all.

The disease is not dangerous, except sometimes to children or the aged, while the former often show a decided exemption.

There is no doubt that this new epidemic will prove a boon to bacteriology, for SKIFERT'S micrococcus has not quite satisfied pathologists, and we anxiously await the announcement of the discovery of the influenza bacillus, only regretting for the sake of American science that the miasm always begins in the East and travels West. The bacteriological laboratories of Europe will therefore have the first chance.

The disease is undoubtedly due to some micro organism which floats in the air, and which infects the human system, but is generally killed in so doing, for the influenza is but slightly if at all contagious.

We observe that some feeling of alarm prevails lest this epidemic be a precursor to cholera, as was the case in 1831 and 1847.

There have been, however, plenty of cholera epidemics without a preceding influenza, and a great many influenza epidemics without any associate cholera. The micro-organisms of the two diseases are as essentially different as are the diseases themselves. The cholera germ lives in water and soil, the influenza germ in the air. The relation between the two diseases has been, we believe, purely accidental.

ERRORS AND ABUSES OF GYNÆCOLOGY.

It is only within a quarter of a century that gynecology has attained rank as a specialty.

No trifling portion of its growth, acquirements, and specifications, are due to the writings of J. MARION SIMS and JAS. Y. SIMPSON, both of whom were in a sense unfortunate in wielding too facile pens. We would not, however, convey the idea that either were given to exaggeration—far from it: but they wrote in a smooth convincing strain that impressed upon the average reader a degree of positiveness they were very from desiring to cultivate. The fault, if any, was in gauging the knowledge and observation of their audiences too highly.

As a result, self-styled gynæcologists rapidly multiplied, until now scarcely a country village or cross roads is without a representative, the majority ignorant of the very rudiments of the specialty they profess, but anxious to impress patients and at the same time increase the source of professional income. It is no exaggeration to assert that the larger number of the so-called gynæc specialists are of this class —a class who derive the little knowledge possessed by successive failures and errors, like the Philadelphia professor who gravely assured his class that one and all, like himself, must "spoil a peck of eyes," ere one successful cataract operation could be performed.

Another class of gynæcologists, little if any less pernicious, are those possessed of but a single idea, and that, one which comprehends only that all evidences of suffering emanate from the uterus or its annexes.

Most of us remember when the prevailing fashion in gynæcology demanded splitting of the cervix uteri. Nearly every woman that fell into the hands of the specialist must needs have the neck of the womb incised for dysmenorrhœa, menorrhagia, endometritis, *et. al.* real and imaginary, until one day a reaction set in, and the divided cervices were not only all sewed up again, but every crack or fissure of the uterine necks that had escaped the former operation was submitted to like treatment. Indeed, the latter is by no means out of fashion at this day, in spite of the well known fact that few women, perhaps none, who undergo the pangs of maternity, escape some slight cervical laceration. Indeed, Dr. EMMETT declares his belief that "Eve had a laceration, and every parous woman since," adding the operation is serious, and one that "should not be done without good and sufficient reason." The writer will add, that repeated post-mortems of lower animals tends to the belief that they are by no means free from like accidents, and that such are more often physiological than pathological sequences.

In a recent number of the Medical News, Dr. WILLIAM GOODELL gives utterance to remarks extremely pertinent in this connection, and lays especial stress upon the fact that the specialist is too apt to enter upon a wild goose chase after a uterine cause for neurasthenic symptoms. "This abuse of uterine treatment through a mistaken diagnosis," he adds, is in his opinion "the great medical error of the day."

"Once I was asked by a medical friend to see an exceedingly bad case of pruritus vulvæ. Very naturally attributing it to uterine disease, he discovered a small cervical tear, and I was called to decide the question of repairing it. I, too, at first, was led astray; but the suddenness of the seizure, and the lack of consistency in the behavior of the symptoms, put me upon my guard, and we soon found the cause to be an acute attack of jealousy."

Another case, seen in consultation with a well known gynæcologist and teacher, through great bereavement was prostrated by nerve-exhaustion, the symptoms being of markedly uterine character—pain in the back, an irritable bladder, a pelvic bearing-down, an inability to walk, aches in the left groin, menorrhagia, and leucorrhœa. These symptoms had led the attending physician astray, and, finding an insignificant cervical tear, he attributed to it all his patient's ill health, and so operated. The wound healed perfectly except in one suture track on one side of the cervix where a small fistula remained. His patient became rather the worse: he attributed all to the fistula, and tried to close it, and ultimately succeeded, though the lady failed to exhibit any improvement. It was only when he recognized the trouble as a neurosis, and adopted treatment appropriate thereto, that the patient recovered.

Here a patient is put to untold trouble and suffering, to say nothing of expense, and the physician himself troubled in no small degree, all because of the "one idea" that (alas!) is too apt to seize upon and confound the specialist.

DR. GOODELL continues:

"By breaking down the nervous system, the brain-cramming, the intellectual rivalry, the buckram proprieties, and the unwholesome confinement of our boarding-schools and public schools, breed a host of sickly girls, who swarm in every class of society. Manifold diseases, both functional and structural, date from the recitation room. They are mostly of a uterine complexion, for at that time of life the sexual sphere dominates, and the brunt of the nervous and of the vascular disturbances which form the essence of nerve-exhaustion, fall on the most exacting organs—the reproductive. Hence these suffer from neuralgic pains, or from congestion, and the lesions coming from prolonged congestion. Yet physicians, misled by the urgency and number of the so-called uterine symptoms, mistake the effect, or more often the counterfeit effect, for the cause, and give a local treatment when it should be a constitutional one.

"It is so common for girls in boarding-schools to suffer either from amenorrhœa or from irregular menstruation, as to create a general impression in the community that in these schools some drug is secretly given in the food in order to lessen the laundry work. In one school of great repute, so many girls missed their monthly periods that the family physician asked whether it were possible, as his patients averred, 'that as their clothes were lanudried in the building, something was given in their food or drink to produce the effect, for the purpose of saving the laundress the disagreeable task of washing napkins.' * * *

"In a parous neurasthenic woman, a leucorrhœa, a slight prolapse of the womb, a small tear of the cervix, or an insignificant rent of the perineum, each plays the part of the will-o'-the-wisp to allure the physician away from the bottom factor. To these trifling lesions—because they are visible, palpable, and ponderable, and because he has, by education and by tradition a uterine bias—he attributes all his patient's troubles; whereas a greater and a subtler force, the invisible, impalpable, and imponderable nervous system, may be the sole delinquent. She may be a bereaved mother, a grieving widow, or a neglected wife, and all her uterine symptoms, yes, every one of them, may be the outcome of her sorrows, and not of her local lesions.

"Often the victim of this misdirected treatment is a young unmarried girl, whose nerves have been upset by some secret grief, perhaps a cross in love, or by ambitions over-study. Misleading symptoms now set in: She loses her appetite, lies awake at night, and grows pale and weak. She has cold feet and blue finger-nails, and perhaps complains of infra-mammary and ovarian pains. Headache, backache, spineache, and an oppressive sense of exhaustion distress her. Her monthly periods, hitherto without sufferiug, now begin to annoy her more and more, until they become extremely painful, and at these times dark circles appear under her eyes. Her linen is stained by a leucorrhœa, and bladder troubles soon set in. She is wearied beyond measure by the slightest mental or physical exertion: the short visit of a friend upsets her for the rest of the day; 'a grasshopper is a burden' to her, and she finally becomes very nervous or hysterical. Now, very unfortunately, the idea attached to this group of symptoms is that the womb is at fault. A moral rape is therefore committed by a digital or speculum examination, and two supposed lesions will be found—first, as a matter of course, the natural virginal antellection; and, secondly, a slight uterine catarrh. These are at once seized upon as the prime factors, and she is accordingly subjected to a painful, unnerving, and humiliating treatment for the false flexion and the sham endometritis. Unimproved, she drags herself from one consulting room to another, until finally, in despair, she settles down to a sofa in a darkened room, and becomes either the spoiled pet or the vampire of the family."

That this is not an overwrought picture, every candid physician will attest.

"At the present time," adds Dr. GOODELL, 'there are in my private hospital seven ladies who are rapidly recovering from general nerve-exhaustion, from its sham uterine symptoms, and will get well without any local treatment whatever. Yet all were pronounced by their physicians to be cases of uterine disease, and had been so treated for months, and even for years, without benefit. One of them was urged by an excellent authority to submit to the removal of her ovaries; another, to have her slightly torn cervix sewn up; a third, to have a trifling rent in the perineum repaired. Whilst the fourth, a young girl whose nerves had given way from hard study, who had a perfectly healthy and perfectly poised womb propped up by an anteflexion pessary, was treated every other day, for weeks, by an application, and deluged twice a day with gallons of hot water.

Many of us have laughed at the quaint but kind doctor in one of BULWER'S novels, who prescribed a special pellet for each emotion, and calms a passion by its appropriate parvule. But are the physicians of the nineteenth century—a century of infinite progress—a whit the wiser—we who seek to cure the nerve-reflexes of grief, of love, of neglect, and of jealousy, not by harmless infinitesimals, but by the removal of the ovaries, and by operations upon the cervix and the perineum; or try to salve brain-wounds and heart-pangs by anteflexion pessaries, by uterine applications, and by vaginal douches of a temperature of 110°? Can the rankest materialism be pushed further than this?

The symptoms of nerve-prostration so greatly resemble those of even coarse uterine lesions, that the nerve-mimicries can very readily be mistaken for signals of actual orgauic disease. Nor, indeed, are they always distinguishable the one from the other, for the marvelous kinship between miud and matter is a tangled skein, not yet unraveled by dead-house or by laboratory.

Dr. GOODELL concludes his paper with the following suggestive axioms:

1. "Always bear in mind that woman has *some* organs outside of the pelvis.

2. "Each neurotic case will usually have a tale of fret and grief, of eark and care, of wear and tear.

3. "Scant, delayed, or suppressed menstruation is far more frequently the result of nerve-exhaustion than of uterine disease.

4. "Anteflexion *per se* is not a pathological condition. It is so when associated with sterility or with painful menstruation, and only then does it need treatment.

5. "An irritable bladder is more often a nerve symptom than a uterine one.

6. "In a large number of cases of supposed or actual uterine disease which display marked gastric disturbance, if the tongue be clean, the essential disease will be found to be neurotic; and it must be treated so.

7. "Almost every supposed uterine case, characterized by excess of sensibility and scantiness in will-power, is essentially a neurosis.

8. "In the vast majority of cases in which the woman takes to her bed and stays there indefinitely, from some supposed uterine lesion, she is bed-ridden from her brain and not from her womb. I will go further, and assert that this will be the rule, even when the womb itself is displaced, or it is disordered by a disease or by a lesion that is not in itself exacting or dangerous to life.

"*Finally.* Uterine symptoms are not *always* present in cases of uterine disease. Nor when present, and even urgent, do they *necessarily* come from uterine disease, for they may be merely nerve-counterfeits of uterine disease."

THIOCAMPH.

The question of disinfection is one which the physician should be competent to give the best advice upon. Recent investigators have brought out facts in relation to the practical application of sulphur, which is used so largely as a disinfectant, that we think it worth while to present these newly-discovered features of its proper employment.

From a recent article entitled "Bacteriological Researches on Disinfection by Sulphurous Acid," we gather the information that, under the direction of DUJARDIN-BEAUMETZ, MM. DUBIEF and BRAHL have carried on a series of experiments in Cochin Hospital to ascertain the microbicide effects of gaseous substances, and in particular of sulphurous acid.

In a room hermetically closed, the experimenters collected, by means of a Miquel flask, the germs contained in a litre of air, and diffused through 50 culture flasks containing sterilized and alkinized beef broth; then sulphur was burned in to the room. After 24 hours a new "catch" of air like the first was effected, and the germs were soon in the same number of sterilized flasks.

The number of atmospheric germs was always more feeble after the sulphuration than before, and was the more so in proportion to the moisture of the air. In the normal state, the bacteria and micrococci were especially numerous, the mercedines much less. The proportion was the reverse after sulphuration.

To verify whether sulphurous acid acts in the dry state, the dust of a given quantity of air was collected on two plugs of cotton contained in a glass tube sterilized by heat at 200° C. On subjection of these plugs to the action of a current of pure and dry sulphurous acid, for 48 hours, and sowing the contents in nutrient gelatin, it was found that the quantity of germs was more feeble. From these experiments the following conclusions were drawn:

Gaseous sulphurous acid has an evident microbicide action on the germs contained in the air. This action manifests itself especially when the medium is saturated with vapor of water. It acts particularly on the germs of bacteria. It may destroy the germs in the dry state when the action is prolonged.

From the above experiments it will be seen that the germicide action of this gas is a real fact, and that this action is particularly manifest when the atmosphere is saturated with moisture. It is true that there has of late been a tendency to distrust the gaseous disinfectants, and certain German and Russian experimenters seem to have demonstrated the worthlessness of sulphurous acid fumes, but these experiments were vitiated by the fact that the extreme diffusibility of the gas was not sufficiently taken into account, the rooms in which they were performed not being hermetically tight. Certainly, experience in armies, asylums, prisons, etc., during epidemics, when sulphur fumigations were relied on for prophylaxis, appear to have established the efficacy of this mode of disinfection.

Dr. E. R. Squibb, of Brooklyn, in a recent paper on "Disinfection by Burning Sulphur," remarks that "The chemical changes resulting from burning sulphur in dry air do not yield sulphurous acid, but sulphur dioxide, which," he says, "is not disinfectant. There should be moisture, either with the sulphur dioxide, or with the infected matter, or with both." The necessary amount of watery vapor to combine with the inactive dioxide of sulphur in order to render the latter a powerful disinfectant, can easily be obtained by evaporating a considerable quantity in the room that is to be fumigated.

It is, therefore, well established that sulphurous acid is an efficient disinfectant, but owing to its gaseous condition, its employment has been attended with many objectionable features. To overcome these, the new disiufectant, Thiocamph,—which is a combination of camphor with sulphurous acid, contains over 60 times its volume of sulphurous acid gas, that upon exposure in a warm room is gradually evolved—has been recently introduced.

The property of camphor to absorb sulphurous acid with the formation of a new chemical

compound was pointed out some time ago by H. M. Schultze, in Jour. f. pr. Chemie, II, 24, 17.

Thiocamph is a liquid, and may be employed in a pure condition, or in alcohol, in which it is readily soluble.

MEDICAL PRACTICE IN OLDEN TIMES.

The New York Medical Journal has recently had a consultation with the ancient classics, and concludes from these oracles that not a little of so-called medical practice of to-day is a revivification of the methods of the ancients.

It is not in reading the works of ancient medical authors that one has glimpses of the general practitioner or specialist of that day in their relations to the people. From the works of HIPPOCRATES and GALEN, and from those of the skilled Arabian physicians, we learn many interesting medical and surgical facts, some of which, to tell the truth, have only recently been rediscovered and relabeled by modern practitioners unfamiliar with the experiences of their ancient *confreres*. But it is to the popular writers—the poets and philosophers of the past—that we must turn for those side-lights which show us the doctor himself in his various practical attitudes. In the course of some desultory reading we may meet with such passages as abound, for instance, in the works of EPICTETUS. He was born toward the end of the reign of NERO, somewhere in Phrygia, and, although a Greek and a philosopher, was the slave of a Roman captain, as it was fashionable in those days for prominent Romans to add living poets, wise men, and athletes to their anthropological collections acquired from every zone.

EPICTETUS pictures the general practitioner in Rome in this wise: "Going about as a physician does and feeling pulses, saying to one, you have a fever; to another, you have a headache or the gout; to one, abstain from food; to another, eat, or do not use the bath; to another, you require the knife or the cautery." (Book iii, chap. 22.)

Here is a little side-light upon household remedies, those familiar crotchets of the old ladies of Rome: "Eye-salves are not useless to those who use them as they ought and when they ought. Fomentations are not useless. Dumb-bells are not useless. Let him who is suffering from dysentery ask me if vinegar is useful. Seek first for the discharge to be stopped and the ulcers to be closed." (Book ii, chap. 21.)

Antisepsis was exceedingly popular, as the following bears witness: "For this reason, water, oil, hands, towels, scrapers, nitre, sometimes all other kinds of means, are necessary for cleaning the body." (Book iv, chap. 11.)

Here is a query for the ophthalmologist: "What is more paradoxical than to puncture a man's eye in order that he may see?" (Book i, chap. 25.)

The climatologist had also his place in Rome: "Thus also physicans send those who have lingering diseases to a different country and a different air." (Book iii, chap. 16.)

We have an occasional glimpse of the obstetrical service of those days: "To say nothing of the rest, he must have a vessel for heating water to bathe the child; wool for his wife in labor; oil, a bed, a cup." (Book iii, chap. 22.)

The allusions to the aliptic art are exceedingly numerous, for the *aliptæ* were the *masseurs* and *masseuses* of the day. Massage and inunction were far more widely employed then than even now.

It seems that, through some defect in the laws perhaps, diploma mills must have been run very fast in Rome in the time of Nero and his successors. There must have been more doctors than were actually needed, and the struggle among them for practice must have presented the same edifying spectacle that we behold to-day in various places. Otherwise, how are we to explain the following? "What physician invites a man to be treated by him? Indeed, I now hear that the physicians in Rome do invite patients, but when I lived there the physicians were invited." (Book iii, chap. 23). "If you like, take your place in the agora and proclaim your syllogisms for sale like dealers in physics!" (Book iii, chap. 24.)

Were the foregoing passages written eighteen centuries ago or yesterday? Coming down to a little over two hundred years ago, to London, Mr. SAMUEL PEPYS, among his famous commentaries upon the life and fashions of that time, especially at court, does not forget to mention the great representatives of our profession with due respect and honor. What color could he have added to this sketch to bring the doctors in a more life-like manner before our mind's eye? It was written in his "Diary," September 19, 1664: "Dr. PIERCE tells me, when I was wondering that Dr. FRAIZER should order things of the Prince in that confident manner, that FRAIZER is so great with my lady CASTLEMAINE, and STEWART, and all the ladies at court, *in helping to slip their calves when there is occasion*, and with *the great men in curing of them*, that he can do what he pleases with the King, in spite of any man, and upon the same score with the Prince; they all having more or less occasion to make use of him."

A second edition of Dr. St. John Roosa's, "A Doctor's Suggestions to the Community," has been published with the title of "The Old Hospital and Other Papers." The work is so full of suggestions to both the profession and laity that we shall give it early editorial review.

Notes and News.

The City of Sanitas.—

Its walls of tiles enamelled,
Shine in the sun's bright sheen,
And the broad, deep moat about them
O'erflows with Listerine.

When the approaching traveller
Draws near the city's gate,
A sanitary picket
Demands his purpose straight:
And if he fain would enter
That city in its pride,
He must first be stripped and ducked
In kreolin germicide.

They'll shave his head and body,
Ere the inner gate they ope,
Using freely of a lather
Made from strong carbolic soap;
While the razor used to further
Their depilatory zeal
Has been sterilized by heating.
Till it fairly makes him squeal;
And by aid of hose and stopcocks,
And tubes appropriate,
They wash out all his cavities
With corrosive sublimate.

This done, he passes onward
To a laboratory near,
Where he's carefully inspected
By a microscopic seer.

When this critical inspection
Is eventually passed,
They ope' the inner gateway,
And let him in at last.

Clad in a shirt aseptic
Of asbestos silicate,
And outer germ-proof tunic
In triple nickel-plate,
He treads the polished surface
Of the broad and cleanly street,
Which sterilized char-women
With naphthaline keep sweet.

High overhead an awning
Of antiseptic gauze
Strain the outer air of microbes
Who'd violate the laws;
And at nearly every corner,
With microscope at eye,
Biological policemen
For errant germs do spy.

O pure, aseptic city,
Where microbes never stray!
Where curled or straight bacilli
Are never asked to stay!
I know not—Oh, I know not
What health awaits me there!
What freedom from contagion!
What purity of air!
There could one live forever,
Free from insidious worms,
And never know the horror
Of a world too full of germs.

—C. F. C. in the *Boston Med. and Surg. Journal*, Nov. 21, 1889.

The Abolition of the Title of Doctor.—The N. Y. Med. Record thinks the title of Doctor, like the Chinese, must go. It says in a recent issue:

"Counting the druggists, corn-doctors, horse-doctors, dentists, chemists, clergymen, and philosophers, the number of persons, not physicians, who receive and are addressed by the title of doctor (or 'doc') must nearly or quite equal that of the medical profession.

"The title is therefore not a distinguishing one, nor does it carry with it any especial respect, call forth any peculiar deference, or add ordinarily to one's social advantages. The number of 'docs' and doctors in this country is enormous and burdensome. The name is sounded in the car at every corner, and in every form and kind of gathering. The citizen goes to Dr. A for his preaching, to Dr. B for his teeth, to Dr. C for his horse, and to Dr. D for his corns; while his wife goes to Dr. E for her nails, and to Dr. F for her malaria: and the result is, that the average family of modern New York lives in a delirium of 'docs' and doctors who are continually engaged in the patchwork of the body or soul.

"The question occasionally arises, and is seriously discussed, whether it is not time for self-respecting physicians to consider the propriety of dropping the title of 'doctor' in their intercourse with their fellows altogether, and leave it to the dentists, the veterinarians, and philosophers. This title is not used by English surgeons, and they seem to be not the worse in reputation or less skillful and successful in practice.

"There was a time when a special title, a peculiar costume, and an affected air and deportment were essential to the physician. Without their 'cassocks and mules, they could not have duped the world,' said PASCAL. Now people are beginning to depend on physicians because they have learning and experience and skill—not because of their deportment or pretensions. We say they are beginning to do so; and we are forced to confess that it is only a beginning.

"But the magic of the name of 'doctor' has long gone; it is as non-distinctive, weak, and ineffective as that of a 'colonel' in Kentucky, or a 'corporal' in Hayti. It simply identifies a man in a crowd as being one of two hundred thousand 'docs' and doctors who are diffused through the land.

"The time will come, and is coming, when medical men will be glad to stand on the same plane as other professions and classes, and appear before the world as plain 'Mr.,' a title which is considered good enough for the President of the United States."

Who Shall Practice Massage.—A question regarding the right of a certain masseur to undertake cases on his own responsibility at the Hercules Baths having come before the Hungarian Sanitary Council, the matter was fully considered, and was made the subject of a minute referring not only to the case in point,

but to the general question of non-medical persons practicing massage. The minute states that it is contrary to the public interest to allow a person without medical qualification or supervision to practice massage, or to give a licence for the purpose. The Sanitary Council bases this decision on the important part massage plays in general medical treatment, a brief account of its history being given. "When," says the minute, "massage was only practiced by individual quacks, it could certainly not be said to have formed any part of general medical treatment. Now, however, in consequence of the experimental and scientific basis on which it has been placed during the last decade, and of its regular administration and its value in prognosis, as well as in consideration of the results gained by this new treatment, it takes a high rank amongst remedial measures. In exceptional cases only would it be safe for a layman to practice massage; in certain rheumatic affections, for instance, he could do no worse than cause some slight extravasations of blood. In other cases of disease, however, a person without any knowledge of anatomy, physiology, or pathology, who could not make a proper diagnosis, might do considerable mischief. The public does not distinguish; it would consider only who has a licence to practice, not as a help to the physician, but as an independent specialist, who can not only practice massage, but medicine in general.—*The Lancet.*

Cost of the Paris Exposition.—Many strangers have been speculating on the cost of the Paris Exposition. It amounts to $7,600,000; but when to this is added the various amounts expended by the French ministerial department from the funds placed at their disposal for the purpose of entertaining foreign guests and for other incidental outlays, and those by foreign governments and individual exhibitions, the total, according to a rough estimate of the department of public works, cannot fall far short of $30,000,000. The expense of the glittering exhibition on the Champs de Mars in money was large, and so was its cost in life and limb. It is calculated that during the construction, 6,500 men were treated for injuries or from illness resulting from exposure; 300 workmen hurt their legs, 260 received severe injuries to their eyes from projecting timbers or bars of iron; 114 were scalded or severely burned, and 50 had their fingers cut off. The deaths from falls are put down at the modest figure of 24; but it is believed that they were far more numerous, and the correct number was not given by the promotors of the exhibition.

Antipyrin's Public Sale.—A correspondent of the AGE from Hong Kong writes that the following was clipped from a Hong Kong daily newspaper. This is recommended to the Committee of Revision for the forthcoming Pharmacopœia when considering antipyrin for official recognition:

DR. KNORR'S

ANTIPYRINE.

(*Dose for Adults* 15 *to* 35 *grains troy*).

Is the most approved and most efficacious remedy in cases of HEADACHE, MIGRAINE, NEURALGIA, RHEUMATISM, FEVER, TYPHUS, ERYSIPELAS, WHOOPING-COUGH, and many other complaints. It is also the very best antiseptic. Highly recommended by the Medical Faculty. To be had of every reputable Chemist or Druggist. Ask for Dr. KNORR'S ANTIPYRINE! Each tin bears the inventor's signature, "Dr. KNORR," in red letters.

Supplies constantly on hand at JUSTUS LEMBKE & Co., Hong Kong and Shanghai—Sole Agents for China. Beware of spurious imitations!

Hong Kong 29th May, 1889.

Special Hospitals for Phthisis.—The recognition of the contagiousness of phthisis, and of the importance of prophylaxis in connection with this disease, has given rise to an active discussion regarding the advisability of having separate hospitals for phthisical patients. The matter is being agitated, especially in Berlin, and no doubt there will soon be some practical outcome. It is not desirable to alarm unduly the public on this matter, for phthisis is not very contagious and is, indeed, practically non-transmissible to those who have not the proper soil. But it would be advisable, for many reasons outside the contagiousness of the disease, to have these special hospitals. The treatment of phthisis, if properly carried out, requires much attention and skill, and the employment often of special apparatus.

Such special treatment could be better given if the cases were placed together, either in a single hospital or in separate wards. City hospitals, in particular, could deal better with phthisis if they had country branches to which curable cases could be sent.—*Med. Record.*

Effect of Alcohol on the Secretion of Bile.—Dr. CHELTSOFF publishes in the Ejenedelnaya Klinicheskaya Gazeta an account of some experimental observations on dogs, undertaken with a view of determining the nature and amount of the influence of alcohol upon the secretion of bile. He made biliary fistulæ in the animals, and after all the disturbance caused by the operation had passed off, proceeded to observe the effect of introducing alcohol in various quantities into the stomach. The bile as secreted was collected in glass receivers, which were changed every few minutes, the contents being measured, weighed, and otherwise examined. The results showed that small quantities of alcohol either have no

perceptible effect on the bile, or serve to increase it slightly. Large doses, on the other hand, perceptibly diminish the flow, though sometimes there is at first a temporary increase. Medium doses do not give any constant result. Dr. Cheltsoff has come to the conclusion that alcohol acts directly on the hepatic cells.

A Precursor of M. Brown-Sequard.—M. MEGNIN, publishes in the Journal des Connaissances Médicales, of August 15, 1889, a note in which he announces that he has discovered, in a book entitled "La Chasse au Chien Courant" (p. 202), published in 1838 by ELZEAR BLAZE, a passage couched in the following terms: "When you have the fortune to kill a wild boar, do not throw away the testes [*les suites*], they will prove very useful to you later. If perchance the desire to marry seizes you at an advanced age, when only vague hopes of becoming a father remain to you, *vous savez*? There are moments when one has confidence in himself, then everything vanishes like a phantom. *Eh bien!* the testes of your wild boar, dried and powdered, diluted with broth of an old and virile cock, and swallowed fasting by you and your spouse, will have a marvellous effect; children will be born to you every nine months, and you will be obliged to come to me asking for another recipe which will bring about the former condition of affairs."

Forty-Third Anniversary of the New York Academy of Medicine.—The New York Academy of Medicine observed its forty-third anniversary on the evening of November 21st, in its new building, No. 12 West Thirty-first Street. In opening the Meeting, the President, DR. LOOMIS, called attention to the need of $20,000 in additional subscriptions to the Academy's new building. He said that $150,000 had already been subscribed, that the Academy hoped to add $70,000 to the building fund by the sale of the present building, and that the new building when done would be the best equipped of its kind in the country. The anniversary address was delivered by Dr. WILLIAM M. POLK, on "The Relation of Medicine to Some of the Questions of the day."

Dr. John S. Billings Appointed Medical Director of the Hospital of the University of Pennsylvania.—Dr. JOHN S. BILLINGS has accepted the position of Medical Director of the Hospital of the University of Pennsylvania. The duties of this position have been arranged so that they will not in any way conflict with his important duties at Washington. It is understood that the Board of Trustees of the University have also in contemplation the erection of an important building for a complete School of Hygiene. It is expected that, at some future time, Dr. BILLINGS will assume the position of Director of this department.—*Med. News.*

An Eccentric Physician's Will.—A physician's last will and testament, of an extraordinary character, is about to be contested at Buda-Pesth. It is that of the late Dr. GOLDBERGER, who left a fortune of $250,000 to accumulate, until, in the course of years, it shall have reached the sum of $1,000,000,000, when it shall begin to be used as a fund for the abolition of poverty everywhere. The trustees appointed under the will having declined to serve, and claimants for the estate have arisen at Madrid, London, and in this country.

The Doctor in General Literature.—Under the title of "The Pardon of Ste.-Anne d'Auray, and other Breton Pictures," Dr. WILLIAM PERRY NORTHRUP contributes to the current number of "Scribner's Magazine" an exceedingly clever portrayal of some of the peculiarities of the people of Brittany, interspersed with brief but telling comments. We have before had occasion to speak of Dr. NORTHRUP'S work in general literature, and we hope that opportunities of referring to it in the future will not be lacking.—*N. Y. Med. Jour.*

Therapeutic Brevities.

Coronilla, a New Cardiac Remedy.—The Therapeutic Gazette gives some interesting facts and deduction in regard to the special action on the heart of this new drug.

The *Coronilla scorpioides*, from which the drug is obtained, is an annual plant widely distributed throughout southern France, of the family Papilionaceæ, sub-order Coronillæ. From experiments on animals, Cardot has determined that coronilla arrests the heart in systole. He cites four cases in which its use produced considerable amelioration in various cardiac affections. Recently Schlagdenhauffen, Gley, Reed, and Spillmann have called attention to the drug. A glucoside has been isolated, termed coronillin, of which the toxic dose for a man weighing a hundred and twenty pounds would be about three quarters of a grain. At the same time Schlagdenhauffen and Reed maintain that as much as two or three grains of coronillin must be administered to produce any therapeutic effect, or from nine to twenty-two grains of the extract.

Coronilla is said to act especially on the muscular tissue of the heart, increasing its contractility. In seventeen cases of heart disease Spillmann employed it during the asytolic period. In eight of these the remedy gave satisfactory results, while in seven it proved entirely inoperative. A diuretic effect was frequently observed, the daily amount of urine increasing from seven ounces to from two to four quarts. The therapeutic effect of coronilla, administered three or four days in succession, became apparent in twenty-four or thirty-six hours after the ingestion of the first dose. The drug acts but feebly on the frequency and rhythm of the cardiac pulsations,

but is said to produce an increase in the amplitude of the pulse, an augmentation of diuresis, diminiution of œdema, and improvement in respiration. The good effects of coronilla seem to be of the most transient character. In a day after the cessation of its use the patient returns to his previous condition. Thus the value of coronilla is highly problematical, one author maintaining that three quarters of a grain of coronillin is a toxic dose, and another recommending from three to five grains. Further experiments are essential to test coronilla satisfactorily.—*N. Y. Medical Journal.*

Fervers on the Treatment of Whooping-cough by Quinine Injections.—The author begins by attributing the popular impression that this disease is unamenable to treatment, to the fact that cases are seldom brought to the notice of the physician until an advanced stage has been reached. Quinine has already been largely given for this complaint, and often with great success; but children commonly vomit the large doses which are alone of service, and they refuse to swallow the capsules or tablets whole. It has also been given as a clyster, but by this method there has always been a large and varying portion of the drug unabsorbed. The salt employed by Dr. Fervers was the carbamide, which, according to Binz, contains 62.5 per cent. of dry hydrate of quinine. The first case was that of Julie B., five weeks old. The cough had already lasted ten days, and at the commencement there were eleven daily paroxysms. After five injections of 6 centigrammes of dry hydrate each, the number of paroxysms fell to four, and by the eleventh day, after three more injections, they ceased. The injections, which were made in the gluteal region, were followed by no unpleasant results, either local or constitutional. In his concluding remarks the author recommends that the solution be neither too bulky nor too concentrated; the mean strength employed by him was 50 per cent. The great objection to this mode of administration is the resistance offered by both child and parents, and in a large number of cases it was abandoned at an early stage owing to this operation. The method should therefore be reserved either for those who can take quinine in no other way, or for others in whom the severity of the affection is so great as to demand the most rapid means of amelioration within reach. The carbamide is the best salt to use, but even that might be improved upon could a salt be found more readily soluble and not liable to be precipitated by alkaline tissues. —*Lond. Med. Recorder.*

Insanity After Acute Surgical or Medical Affections.—Drugs are to be employed with a twofold object. First, and chiefly, to increase the nutrition of the nerve-centres and general tissues of the body; for this purpose iron combined with bitter tonics, administered in small or large quantities, according to the individual character of the case, strychnine given in ascending doses to the limit of physical tolerance, and phosphorus continuously exhibited in such small doses (1-120 of a grain to 1-100 of a grain) as not to disturb digestion, I have found to be of great service. Second, to obtain sleep when there is wakefulness, or to quiet delirious excitement. Here the bromides naturally suggest themselves, and they are often used in very large quantities: it should be remembered, however, that the bromides are powerful depressants, not merely to the functional, but also to the nutritive activity of the nerve cells, and I am sure that I have seen very distinct injury done by their free use in confusional insanity. In any individual case, the selection of a hypnotic or quietant is to be based chiefly upon the results of trial. In some instances, opium seems to act favorably; more commonly hyoscine is of advantage. Chloral ought certainly to be tried on occasion. As a calmative, the hot-pack is often very serviceable, and I have seen a very active delirium apparently greatly benefited by free blistering of the scalp.—H. C. Wood, M. D., in *Univers. Med. Mag.*, Dec., '89.

Krutovsky on Quebracho in Bronchial Asthma.—In the Novosti Therapii, No. 12, 1889, p. 178, Dr. Vladimir M. Krütovsky, of Krasnoiarsk, Siberia, relates an exceedingly severe and refractory case of bronchial asthma (in a woman of 30), in which, after morphine, hydrate of chloral, cocaine, iodine, bromine, atropia, pyridin, and other usual anti-asthmatic means had failed to afford any amelioration, he prescribed quebracho in the following combination:

℞ Decocti quebracho ext., ʒ iij, par. ad ʒ vj.
Potassii iodidi, ℈ij.
Tincturæ opii benzoicæ, ʒ ij.

A tablespoonful every 2 hours.

The spasms rapidly ceased. On discontinuing the mixture, however, they returned, though in a very mild form. After two or three doses the symptoms again vanished without trace. Not a single attack occurred during the subsequent six months (up to the date of the communication), the patient apparently continuing to take the medicine all the while. [Tinctura opii benzoica s. elixir paregoricum *Ph. Russ.* is prepared of 1 part of powdered opium, 4 parts of benzoic acid, 2 parts of camphor, and 2 parts of anise oil, which are dissolved in 192 parts of a 70 per cent. rectified spirit of wine. Two hundred parts of the tincture contain 1 part of opium.—*Rep.*]

A New Remedy for Dysentery.—The Boletin de Medicina, of Santiago de Chili, gives notice of a new plant which is said to be a wonderful remedy for dysentery and diarrhœa. The sketch was presented to the Chilian Medical Congress by Senors Daniel Carvallo and Emilio Eisene. The plant is named "*el bailahuen*," and its botanical title is "*Haplopappus bailahuen*." It is a native of the Cordilleras of the Andes, between 20 and 30 degrees of South latitude.

The shoots of the bailahuen are soft, glutinous, and smooth, and the virtue of the plant lies in all parts. It is prepared as a tincture, a fluid extract, and as an alkaloid. Its therapeutic effects have been shown in a number of cases of dysentery, indigestion, diarrhœa, metritis, and sexual impotence. It appears that this Chilian plant possesses valuable properties in dysentery, operating somewhat

after the manner of ipecac without the nauseating qualities, and with a more durable result. After its use there is no need of a purgative to restore the bowel action. In other diseases referred to, beside dysentery and diarrhœa, experiments have shown it to be valueless.—*Times and Register.*

On the Treatment of Scarlet Fever by Chloral Hydrate.—In conclusion the following propositions are affirmed:

1. The treatment of scarlet fever by chloral hydrate without the use of other drugs has yielded satisfactory results.

2. The chief rôle of chloral in the treatment of scarlet fever is that of a sedative to the cerebral centres. It appears to antagonize certain exciting toxic principles formed within the organism during the course of the disease.

3. Chloral is also useful on account of its antiseptic properties, (*a*) upon the throat; (*b*) upon the kidneys; (*c*) to a slight extent upon the fluids of the organism at large.

It is necessary in this connection to bear in mind the difference between the germicide and the antiseptic influences of drugs. No amount of chloral compatible with the maintenance of life can act within the organism as a germicide. It is assumed that medicinal doses may *tend* to render the fluids of the body antiseptic, that is to say, may *tend* to impair, to some extent, their fitness as culture media for pathogenic bacteria.

4. The elimination of chloral by the kidneys, and its diuretic effect, render it especially useful in the treatment of scarlet fever.—J. C. Wilson, M. D., in *Med. News.*

The Use of Menthol in the Upper Air Passages.—The drug controls superficial inflammation; is an analgesic, and second application can be made in increasing strength without discomfort; also it is destructive of some of the low forms of life, especially the bacillus tuberculosis, and a valuable antiseptic in nasal surgery. It has an important place in the treatment of atrophic conditions. It can be used in strength of from 1 to 50 per cent., dissolved in oil. The oleum petrolia the author considers the best for the purpose of dissolving the drug. It can be applied directly by cotton application, or by means of the spray, or by vaporization. The direct method answers best in the pharynx, the spray and vapor for the nose and larynx. Five cases of laryngeal phthisis following upon disease of the lungs were reported, in which the menthol treatment gave satisfactory results, the local conditions improving rapidly under its use.—Dr. F. H. Potter, *Journal of Laryngology.*

Thallin a Poison.—Albert Robin has taken ground very strongly against the internal administration of thallin. At the Oct. 15th session of the Paris Academy of Medicine, he declares it to be a powerful blood and nerve poison; its antipyretic properties depend upon this very poisonous quality, and hence may not be utilized. It diminishes the secretion of uric acid, and is therefore dangerous in arthritis and nephritis. Prolonged use must inevitably give rise to anæmia and general prostration.—*Berlin. Klin Woch.*, No. 46.

Brouardel likewise gives warning not to employ thallin, because it poisons the red blood corpuscles by converting on a large scale the hæmoglobin into methæmoglobin, as does kairin. (Session of 22d October, 1889).

The Smoke of Hyoscyamus Niger in Toothache.—A Russian practitioner recommends the use of hyoscyamus seeds for toothache. His plan is to burn the seeds, and to convey the smoke through a little paper tube to the hole in the tooth. He declares that in nearly all cases one application, or at most two, will suffice to cure the toothache.—*Lancet.*

Medical Progress.

Progress in the Treatment of Intestinal Obstruction.—At a recent meeting of the Southern Surgical and Gynæcological Association at Nashville, Dr. A. V. L. Brokaw, St. Louis, Mo., read a paper entitled, "Intestinal Anastomotic Operations with Segmented Rubber Rings, with some Practical Suggestions as to their use in other Surgical Procedures." The paper considered in detail the results obtained in an experimental study of all the anastomotic operations, and an original technique and application of segmented rubber rings in such operations as, gastrotomy, duodeno-cholecystotomy, jejuno-cholecystotomy, ileo-colostomy and circular-enterorrhaphy. Reference at length was made to the author's success in closing very large wounds of the intestines, by the use of a single segmented rubber ring, formed of eight short sections of tubing. The ring being introduced into the intestines, is bent upon itself, and the apposition threads being tied, perfect, safe closure of the very largest wound is accomplished without stenosis following. The ring devised by the author is very simply constructed by passing a doubled strand of cat-gut continuously through from four to eight short sections of rubber drainage tubing of a diameter from one-sixteenth to one-fourth of an inch. To the cat-gut within the rubber sections are tied the apposition threads. The segmented rubber rings are applied in the anastomotic operations in the same manner as Senn proposed, in the use of his bone plates. The advantage of segmented rubber rings over other procedures and devices, is the rapidity with which they may be made, during an operation if need be. In the absence of proper tubing, pieces of catheter could be substituted. For the closure of small wounds in the intestines a new suture was proposed. Short rods of decalcified bone one-sixteenth of an inch in thickness, and one-fourth of an inch in width, are perforated at points less than half an inch apart for the passage of the apposition threads which are attached in this manner; a strand of chromatized cat-gut, or well prepared juniper cat-gut, is doubled and a single knot made in the middle of this doubled cat-gut strand (silk may be used if preferred), the loop and end threads are passed through the small openings made in the decalcified bone rods. Each thread and loop is threaded to separate needles, the rods introduced in the wound in the bowel, the

needles passed from within outward less than a quarter of an inch from the wound margins, and the loops and single threads tied in pairs. For this method was claimed accurate, rapid, and safe closure of small wounds of the intestines. The author preferred a segmented rubber ring in the closure of large wounds.

A description of two new wholly absorbable apposition rings was given, which had experimentally shown most excellent results. One was formed by decalcifying the long bones of chickens and young animals. The process of decalcifying being the same as for making bone drainage tubes. With short sections of bone so prepared, and a double strand of catgut, the rings were made in a manner similar to the described segmented rubber rings. The second wholly absorbable ring was made of short sections of the arteries of large animals. After dissecting the arteries up from their sheaths, they are cut in short segments, boiled five minutes, and in the lumen of each section is pushed a glass rod, and they are then immersed in alcohol for a few days. When the rods are withdrawn, the hardened artery tubes are ready for use. With four to eight sections of arteries so prepared, approximation rings are easily made by passing a double catgut strand continously through the lumen as described previously. These rings serve their purpose admirably, are very easily made, give a good-sized aperture, and are entirely absorbed in a few days. Experiments were made upon over fifty dogs by the above methods.

The New York Medical Journal for March 25, 1889, contains a paper read by Dr. Robert Abbe before the New York Surgical Society, on a case of complete obstruction of the colon successfully relieved by using Senn's plates. These plates, the use and mode of application of which cannot be readily explained except by drawings or actual demonstration, were devised by Dr. Nicholas Senn with the view of shortening the operation for restoring the intestinal canal in cases of complete obstruction. The principle of this method is to substitute for the tedious stitching of the lips of two longitudinal openings in adjacent portions of intestine a compression of those edges between two disks of decalified bone placed within the bowel and tied tightly to each, thus bringing about adhesion by approximation. The case recorded in this paper serves to illustrate the advantages of this method in certain instances. Above and below a complete obstruction by neoplasm of the hepatic flexure of the colon, the transverse and ascending portions of the gut, where they lay side by side, were opened each by an incision one inch and a half long, made across one of the longitudinal bands. A perforated bone plate was slipped into the gut through each wound, and then, the opened portions of colon having been brought together, the co aptation was maintained by connecting one plate with the other by sutures passed through the wall of the gut on each side. The patient recovered from the operation, and on the tenth day the bowels were relieved. After an interval of three months, during which the general health had improved very much, death occurred as a result of the natural progress of the disease which was cancerous stricture of the colon. The *post-mortem* examination proved the efficacy of the plates. These had evidently been dissolved and passed away, but the sutures still remained firmly attached to the margins of the artificial aperture. It occurred to Dr. Abbe that, as it takes many days to prepare Senn's plates, a ring might be composed of catgut quite as absorbable and as firm as decalcified bone. The ring recommended as a substitute for the bone plate consists of the thickest catgut softened in hot water until it ceases to twist on itself. It is then formed into a ring of four strands on the ends of three fingers, and wound over and over with the same-sized gut tightly applied. When completed this ring is stiff and flat, and shows no disposition to curl. The elasticity of this ring, and its tendency to take an oval shape, serves to hold the edges of the wound apart during healing, and so ensures against two accidents which in experiments have occurred with plates —firstly, the partial closure of the orifice; and, secondly, the blocking of the opening in the plate. Dr. Abbe has proved the efficacy of this catgut apposition ring by experiments on dogs.

EXPERIMENTS ON THE ACTION OF SYZYGIUM JAMBOLANUM IN ARTIFICIAL DIABETES.—I have recently had the opportunity, through the kindness of Professor Binz, of making, in the Pharmacological Institute at Bonn, some experiments with extracts of the fruit of syzygium jambolanum upon dogs rendered diabetic by phloridzin. The plant is a tree of the group Eugenioideæ, subfamily Myrteæ, indigenous in tropical America, the West and East Indies, where its acid fruit is eaten. When at Java I learned that the plant is called "djamelang" by the natives, who use the fruit and bark for diarrhœa and diabetes. Since its introduction into Europe as jambul, it has also been used here in diabetes.* In order to test its action more carefully, and to see whether and to what extent it may influence artificial diabetes, or what toxic effects it may possess, I made some dogs diabetic by phloridzin, following the instructions of von Mehrung.† By administering from 25 to 48 grm. of phloridzin daily to young dogs (weighing 2700 to 4800 grm.) in the proportion of 1 grm. per kilo of body-weight, there ensues an excretion of sugar lasting for twenty-four to thirty-six hours, and amounting to from 5.89 to 12.45 grms. At first I gave the phloridzin in one dose, later in gramme doses every two or three hours, without any notable difference in the amount of sugar excreted. In three experiments some diarrhœa was set up. In each case, whenever either before, with, or after the phloridzin, the animal was given extract of syzygium jambolanum, the sugar excretion invariably fell, in some cases to about nine-tenths of the amount excreted under phloridzin alone; in all it was diminished to at least one-half. At the same time the period of excretion was curtailed. Thus, whilst with phloridzin alone the amount of sugar was from 5.89 to 12.45 grm., the amount (with the same dose of phloridzin) under treatment by jambul was maximum 2.906, minimum 1.5 grm. With a drug of which the action begins and ceases within a limited time, its antidote must also act in a definite time and in corresponding quantity, to be determined by experiment. So that if such a

* See Bernhard Schuchardt, Centralbl. für Klin. Med. 1889 No. 23.

† Verhandl. der Kongr. für Innere Med., Wiesbaden, 1885

diminution in the excretion of sugar takes place as related in these experiments—viz., nine-tenths—by the use of jambul, its more accurate employment might perhaps completely check this excretion. The conditions in diabetes mellitus are far better suited to test this, besides showing the agreement between phloridzin diabetes and the natural disease. This research is of special value as showing that the syzygium jambolanum may be used in diabetes mellitus in the human subject much more freely and in larger doses than hitherto, for in no direction were any effects observed which would contraindicate its use. There was no sign of any toxic action even in the dog which had a daily dose of jambul extract. In one experiment, there occurred some diarrhœa, but this happened in later experiments with phloridzin alone, and was probably attributable to the latter. In all the experiments, extracts of the syzygium jambul were used which had been prepared by R. H. Davies, F. I. C., of the Society of Apothecaries, London, from fruits I had brought over with me. The extracts were partly made from the whole fruit, partly from the rind or kernel, and concentrated so that 100 grm. of fruit were represented by 16½ grm. of the kernel and 11½ grm. of the rind-extract. The dose was 6 to 18 grm. daily. It is still uncertain whether the active principle is in the rind or the kernel—probably in both, but more in the former.

The results of three sets of observations may be thus summarized:—

	Grms.	Grms.	Grms.
Sugar excreted with phloridzin	12.2	10.0	10 0
Sugar excreted with phloridzin and jambul	2.1	1.0	1.5
Percentage reduction in sugar	80.8	84.0	85.7

—Dr. C. Graeser, in *Lancet*, Nov. 1, 1889.

COCILLANA.—So numerous have become the new therapeutic resources of the materia medica, that one may almost be justified in passing unnoticed some of them, particularly when they do not promise to accomplish any more than what long-tried remedies have already done. But in regard to cocillana, an exception will have to be taken, judging from Dr. David D. Stewart's clinical experience with this drug, as published in the Medical News of August 24, 1889.

Sycocarpus Rusbyi (cocillana) belongs to the natural order *anacardiaceæ*, and is a native of Bolivia, whence it was first obtained by Dr. H. H. Rusby, in May, 1886. The bark is the part of the tree employed, out of which a concentrated tincture and fluid extract are manufactured for medicinal use. It has a powerful and unmistakable physiological action which, in some respects, resembles that of ipecac. According to Dr. Rusby (Therapeutic Gazette, August, 1888), it is used by the natives of Bolivia solely for its cathartic and emetic effects. Taken in the crude form it is also a vigorous expectorant. Some of the bark was partially dried in the sun, powdered in a mortar, and administered thus crudely in twenty, thirty, and fifty grains, in three cases respectively; nausea, prostration, sneezing, nasal discharge, metallic taste in the mouth without dryness, diarrhœa, with rectal irritation, dull headache, slight perspiration, and free and profuse expectoration of mucous, were some of the more prominent symptoms, chief among which were the expectoration, vomiting, and catharsis. Hence it is suggested that, therapeutically, cocillana might be used in ordinary acute or chronic nasal catarrh, hay-fever, membranous croup, diphtheria, bronchitis, pneumonia, and allied diseases.

Dr. Stewart, has tested the drug in forty cases, comprising ten of subacute, and nineteen of chronic bronchitis; five of broncho-pneumonia, and five of phthisis. Nineteen of the patients failed to report. Of the twenty-one remaining, five were acute, and eleven of chronic bronchitis; four of broncho-pneumonia, and one of phthisis. Some of these cases are related in full in the paper cited. Of the entire twenty one cases, sixteen were benefited while taking the cocillana, and five of these were cured. Cough, expectoration, night-sweats, anorexia, and constipation, were the special symptoms improved. The author's conclusions are, that this new drug is serviceable in bronchial catarrh, especially of the subacute and chronic form.

The dose of the concentrated tincture is from one-quarter to two fluidrachms. This preparation, of which Dr. Stewart used too small a dose to be completely effective, is not so eligible as the fluid extract. This latter preparation, of which we are now making extensive trial, may be administered in doses of ♏vij to ♏xxv every three or four hours. We hope to report our results later, and in the meantime we commend this new and apparently effective remedy to the consideration of our readers.—L.H.M., in the *Times and Register*, Oct. 26, '89.

A NEW ADVANCE IN THE TREATMENT OF UNUNITED FRACTURE.—Every surgeon knows how difficult it is in certain cases to get a broken bone to heal by bony union. The ends may be pegged, and hammered, and sutured, indefinitely without success. In the case of fracture of the radius there are oftentimes special difficulties, since resection—the last source of the surgeon—leaves a gap between the ends of the radius, which is now shorter than the ulna beside it, and so it is almost impossible to bring the bared ends of the fractured parts into apposition, and to keep them there. Even if a piece be cut out of the unfractured ulna, so that the inequality in the length of the two bones is removed, a satisfactory result cannot always be obtained. In the Lancet, October 26, 1889, Professor McGill, after commenting upon the above facts, and relating his failure with the last-mentioned procedure, explains a new method which he applied successfully in one case, taking the hint from a suggestion made by Dr. McEwen, who proposed, in case of destruction of the shaft of the humerus by acute necrosis, that a new shaft should be secured by transplantation of bits of new bone.

In Professor McGill's case, a man, twenty years of age, had fractured both bones so that the ends of the radius protruded through the wound on the radial side of the forearm. The ulna healed quickly and well, but the radius remained ununited, although the ends had been refreshed and wired three months after the accident. Some eight months afterward he came to the hospital. He had a scar over the wound, and the ends of the radius were

quite moveable, the usefulness of forearm and hand being much impaired. An Esmarch's bandage was applied, and an incision was made in the line of the old scar. The ends of the bone showed no signs of union, but were rounded and covered by a thick membrane-like periosteum. When this had been filed away, an interval of three-quarters of an inch was left between the fragments. This interval was filled with thirteen pieces of bone, each about one-sixth of an inch in length, chiselled from the femur of a freshly killed rabbit. The bones were not wired. The skin-wound was tightly stitched, without drainage, with cat-gut. Firm pressure was applied by means of salicylated wool and bandages, and the fore-arm was placed on an anterior splint. There was no suppuration, and very little discharge. The patient left the hospital in six weeks, with the bone firmly united. Three months later the injured arm was as useful as the other. Is it not possible that this method used by Profes-sor McGill may be of service in the treatment of old ununited fractures in other parts? It is possible that a more vigorous action might be set up, by presence of the implanted healthy bone, than would naturally occur in the frag-ments of a fractured long-bone in a person of feeble constitution.—*Medical Record.*

New Operation for Prolapse of the Rectum. — The management of intractable cases of prolapse of the rectum is one of the most difficult tasks which the surgeon can meet with, and a variety of procedures have been proposed, with the design of making the task less trying. Unfortunately, most of these are difficult of performance, and none of them are of very great utility. Under these circum-stances, it is of more than ordinary interest to find a new method, which gives promise of de-cided usefulness, and which, in the single case in which it has been used thus far, has proved entirely successful.

The credit of this proposition belongs to Dr. Jeannel, of Toulouse, and the publication of it to the scientific world to Professor Verneuil, of Paris. At the meeting of the French Academy of Medicine, October 8, 1889, Professor Verneuil read an elaborate report on a communication of Dr. Jeannel, in which he described the method he had adopted, and recommended it in the warmest terms to the notice of his fellow Americans.

As described in this report, the patient of Jeannel was a woman, 57 years old, who had suffered with prolapse of the rectum for years, with displacement of the other pelvic organs, and in whom the usual surgical procedures were of no service. After finding them to fail, Jeannel conceived and executed the following operation. He opened the abdomen in the line usually employed for inguinal colotomy, searched for, and found, the sigmoid flexure, drew it out at the wound, and supported it with a piece of catheter covered with iodoform gauze, passed through the mesentery, after the method of Maydl. This manœuvre reduced the prolapse completely, and in five days there was a stool from the anus, without any reap-pearance of the prolapse. On the sixth day Jeannel opened the bowel, and completed the formation of an artificial anus. After this, the stools were passed from both anuses, and the woman rapidly regained her strength and good spirits. Seven months later the natural anus had almost completely recovered its nor-mal position and shape.

Verneuil, in describing this operation, gives a very interesting account of the principles which should govern surgeons in attempting to correct the conditions of prolapse of the rectum, and points out the admirable way in which they are followed in the operation of Jeannel. He also points with gratification to the measure of success which has attended the new operation. It is possible that he looks too enthusiastically upon the merits of this method, but it cannot be denied that it has much to recommend it upon general principles, and that the success which followed its em-ployment justifies the hope that—perhaps with some modifications—it is calculated to yield excellent results.—*Med. and Surg. Re-porter.*

An Easy Method for the Removal of Plaster-of-Paris Apparatus—I have used of late a plan in the removal of plaster and starch bandages which seems to do away with the annoyance to the surgeon, and the discom-fort, not to say distress, to the patient, attend-ing removal by the shears.

It consists simply in the application of a piece of wire under the bandage, which is made to cut its way out when removal of the apparatus is desired.

The limb is prepared for the bandage in the usual manner, either by the application of a flannel roller or by being well anointed with vaselin. A fine steel wire is then laid the length of the limb, in the situation that it is desired subsequently to cut, and firmly held in that position by an assistant. This is secured by a few turns of the plaster bandage, and the apparatus finished in the ordinary way.

The wire should project four or five inches at each end of the bandage, so as to afford sufficient for a firm hold when the time comes for removal. These free ends of the wire may be bent down after the casing is completed, to prevent the annoyance to the patient which the sharp ends might otherwise produce.

When the removal of the appliance is desired, it is necessary to have the patient rest his limb upon a table in order that it may be perfectly steady, and while the lower projecting end of wire is firmly held in place, to prevent its slip-ping underneath the bandage, the upper end is seized by a pair of pincers and by firm trac-tion is made to cut its way through the whole length of the casing. The apparatus may now be bent back and removed, the operation hav-ing caused no discomfort, which can hardly be said of the combined prying and cutting with a pair of plaster shears.

To two points would I like to call attention before I close. The first is that no attempt should be made to remove the casing until it is completely and entirely dry. The wire will not cut through wet bandage.

The second is, that while one wire will cut through the ordinary light dressing, such as is used on the arm, yet when an extra thickness is given to the apparatus, as in a plaster jacket, or in an appliance to the lower limbs, I would recommend that two or even three wires be used, to make the cutting easier and more sure.

If more than one wire be used, the second is laid as nearly over the first as possible, after a few layers of bandage have been applied, and a third over this if it be deemed necessary. Thus a layer of plaster and bandage will intervene between each of the two or three wires.

The method of cutting is evident. It is done in sections, by pulling the wires in inverse order to that in which they were laid.—CHARLES H. RICHARSON, M. D. in *Med. Record*, Nov. 16, '89.

OBSTINATE VOMITING OF PREGNANCY.—At a recent meeting of the Academy of Medicine, Dr. Guéniot read a memoir on the causes and treatment of the severe or obstinate vomiting of pregnancy. He claims three principal factors concerned in the etiology of this form of vomiting, viz.: The uterus; the nervous system; and the stomach. Consequently it is against the alteration of one of these organs that the treatment should be directed. Thus, as regards the uterus, there may be ulceration of its neck, or a flexion of its body on the neck may be a source of irritation which reflects on the nervous system and on the stomach, and thus produces obstinate vomiting. On the other hand, it is possible that the diseases of the ovum may cause the vomiting. The author had seen a patient who was the subject of a hydatiform pregnancy who was affected with obstinate vomiting. Some irritability of the nervous system might also reflect on the stomach. Finally, the stomach itself may be diseased, which would singularly predispose to vomiting. These etiological considerations should guide the physician in the treatment to be adopted. It is thus that in rectifying a flexion or deviation of the uterus, the raising of the hip combined with the lowering of the trunk, is sometimes sufficient to arrest these persistent vomitings, and the application of a suitable pessary sometimes gives good results. If there be ulceration of the neck, topical remedies and even cauterization may be employed without fear of provoking abortion. If there is a tumor, it must be excised. If there is vaginismus, it must be combated by prolonged baths and the application of an ointment of cocaine. Even when an examination discovers no lesion on the side of the uterus, dilatation of the neck practised with the finger in multiparæ, with laminaria or a dilating instrument in primiparæ, will often arrest the vomiting. If there is irritability of the nervous system, enemata of bromide of potassium or of chloral should be employed. The application of Chapman's ice bag to the stomach, practiced just before meals, is often sufficient to check the vomiting. Inhalations of oxygen are also beneficial. If there be disease of the stomach, the patient must be subjected to a rigorous diet, and all acidulous and alcoholic drinks suppressed. Ice, Vals, or Vichy water, milk or beef tea, to be taken often but in small quantities at a time, may be allowed.

A HINT FOR FACILITATING THE MICROSCOPICAL EXAMINATION OF URINE.—When attempting to examine urine under the microscope for casts, epithelial cells, and other organic bodies, a good deal of annoyance and difficulty is sometimes caused by urates, and also, when the specimen is not quite fresh, by fermentation and putrefactive products. In order to obviate this difficulty, and with the further view of preserving the specimen, Dr. M. Wendringer advises that the urine should be mixed with a nearly saturated solution of borax and boracic acid. This dissolves the urates and keeps the urine from fermenting, and at the same time exercises no destructive effects upon the casts and epithelial elements which it is desired to examine. The solution is prepared by mixing 12 parts of powdered borax in 100 parts of hot water, and then adding a similar quantity of boracic acid, stirring the mixture well. It is filtered while hot. On long standing a small deposit crystallizes out, but clings to the side of the vessel, so that it does not interfere with the transparency of the liquid. The urine to be examined is put into a conical glass, and from a fifth to a third of its bulk of the boracic solution added to and agitated with it. The urine will be found to become clear in a short time—*i. e.*, if there is no cloudiness due to bacteria; and it will remain unchanged for several days. If it is only wanted to clear the urine and to make it keep for a day or two, the addition of a smaller quantity of the boracic solution is sufficient. If a third of its bulk is added, no fermentation or putrefactive processes take place, even if the glass is left uncovered in warm places. Albumen, too, if it exists, is not coagulated. The organic elements—as epithelial cells, casts, blood corpuscles, etc.—collect so quickly, without undergoing any morphological change, at the bottom of the glass, that the first drop taken up by the pipette usually proves a satisfactory specimen.—*Lancet.*

THE OIL OF EUCALYPTUS IN MALARIA.—In an article on this subject, appearing in the Medical News, Dr. J. H. Musser reaches the following conclusions:

1. Intermittent malarial fever is a self-limited disease, and a large number of cases get well on removal from an infected locality.

2. The oil of eucalyptus is of no service in cases of intermitting fever, in the blood of which the organisms that are the possible cause of the malaria are found.

3. The so-called habit-chills are relieved or checked by the use of the drug.

4. Malarial neuralgias, malarial headaches, and vague intermittent symptoms, even complete but mild paroxysms, independent of the presence of any local organic disease, but due to malarial intoxication, are relieved by eucalyptus. The proof that they are due to malarial intoxication has not thus far been found by an examination of the blood it is fair to state, but only because of the residence in the malarial locality, and because others in the same locality are affected with the disease.

5. After quinine has controlled the paroxysms of intermittent fever and cleared the blood from organisms, eucalyptus will relieve or cure abortive paroxysms, intermittent neuralgias or headaches, or those marked symptoms of malaise, prostration, loss of appetite, and feverishness that are often seen.

6. A dose of five drops, four times a day, preferably administered in capsule, is sufficient to produce the desired result.